10613723

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1604dxj

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	OCT 02	CA/CAplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS 3	OCT 19	BEILSTEIN updated with new compounds
NEWS 4	NOV 15	Derwent Indian patent publication number format enhanced
NEWS 5	NOV 19	WPIX enhanced with XML display format
NEWS 6	NOV 30	ICSD reloaded with enhancements
NEWS 7	DEC 04	LINPADOCDB now available on STN
NEWS 8	DEC 14	BEILSTEIN pricing structure to change
NEWS 9	DEC 17	USPATOLD added to additional database clusters
NEWS 10	DEC 17	IMSDRUGCONF removed from database clusters and STN
NEWS 11	DEC 17	DGENE now includes more than 10 million sequences
NEWS 12	DEC 17	TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment
NEWS 13	DEC 17	MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS 14	DEC 17	CA/CAplus enhanced with new custom IPC display formats
NEWS 15	DEC 17	STN Viewer enhanced with full-text patent content from USPATOLD
NEWS 16	JAN 02	STN pricing information for 2008 now available
NEWS 17	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS 18	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS 19	JAN 28	MARPAT searching enhanced
NEWS 20	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS 21	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 22	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
NEWS 23	FEB 08	STN Express, Version 8.3, now available
NEWS 24	FEB 20	PCI now available as a replacement to DPCI
NEWS 25	FEB 25	IFIREF reloaded with enhancements
NEWS 26	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS 27	FEB 29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items

Jagoe

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 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

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  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 10:21:25 ON 02 MAR 2008

=> file reg
COST IN U.S. DOLLARS                                 SINCE FILE      TOTAL
                                                        ENTRY    SESSION
FULL ESTIMATED COST                                      0.21       0.21

FILE 'REGISTRY' ENTERED AT 10:21:33 ON 02 MAR 2008
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   29 FEB 2008  HIGHEST RN 1005981-96-3
DICTIONARY FILE UPDATES:  29 FEB 2008  HIGHEST RN 1005981-96-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> s disodium cocoamphodiacetate
         47211 DISODIUM
             1 COCOAMPHODIACETATE
L1           1 DISODIUM COCOAMPHODIACETATE
                 (DISODIUM(W)COCOAMPHODIACETATE)

=> d l1

L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   68650-39-5  REGISTRY *
* Use of this CAS Registry Number alone as a search term in other STN files may
  result in incomplete search results.  For additional information, enter HELP
```

```
  RN* at an online arrow prompt (=>).
ED   Entered STN:  16 Nov 1984
CN   Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-
     dihydro-2-norcoco alkyl, inner salts, disodium salts  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Imidazolinium compounds, disodium cocoamphodiacetate
CN   Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-
     dihydro-2-norcoco alkyl, hydroxides, inner salts, disodium salts
CN   Onium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-
     2-norcoco alkyl imidazolium, inner salts, disodium salts
OTHER NAMES:
CN   1-[2-(Carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl
     imidazolium hydroxide inner salts, disodium salts
CN   1-[2-(Carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco
     alkylimidazolium hydroxides, disodium salts
CN   Alkateric 2CIB
CN   Ampholak XCO 30
CN   Amphoterge W 2
CN   Amphoteric 2
CN   Dehyton PS
CN   Disodium cocoamphodiacetate
CN   Empigen CDR 40
CN   Mackam 2C
CN   Miracare 2MCAS
CN   Miranol C 2M
CN   Miranol C 2M Conc.
CN   Miranol C 2M-NP
CN   Miranol C 2M-NP-HV
CN   Miranol C2M Conc. NP
CN   Monateric 805
CN   Monateric CDX 38
CN   Monateric CLV
CN   Rewoteric AM 2C-NM
CN   Schercoteric MS 2
CN   Velvetex CDC
DR   959929-81-8, 161756-47-4, 162261-23-6, 57762-71-7, 123759-74-0,
     101801-76-7, 154362-73-9, 53025-18-6, 184538-82-7, 184539-00-2
MF   Unspecified
CI   MAN, CTS
LC   STN Files:   AGRICOLA, CA, CAPLUS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU,
       IFICDB, IFIPAT, IFIUDB, IPA, MSDS-OHS, RTECS*, TOXCENTER, ULIDAT,
       USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:   DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***


=> s ricinoleic monoethanolamide monosulphosuccinate
           248 RICINOLEIC
            34 MONOETHANOLAMIDE
             0 MONOSULPHOSUCCINATE
L2           0 RICINOLEIC MONOETHANOLAMIDE MONOSULPHOSUCCINATE
               (RICINOLEIC(W)MONOETHANOLAMIDE(W)MONOSULPHOSUCCINATE)

=> s ricinoleic monoethanolamide
```

```
           248 RICINOLEIC
            34 MONOETHANOLAMIDE
L3           0 RICINOLEIC MONOETHANOLAMIDE
                 (RICINOLEIC(W)MONOETHANOLAMIDE)

=> s PEG 20 hexadecenyl succinate
           356 PEG
        559562 20
          4893 HEXADECENYL
          8619 SUCCINATE
L4           0 PEG 20 HEXADECENYL SUCCINATE
                 (PEG(W)20(W)HEXADECENYL(W)SUCCINATE)

=> s octoxyglyceryl palmitate
             0 OCTOXYGLYCERYL
          1532 PALMITATE
L5           0 OCTOXYGLYCERYL PALMITATE
                 (OCTOXYGLYCERYL(W)PALMITATE)

=> s octoxyglyceryl behenate
             0 OCTOXYGLYCERYL
           196 BEHENATE
L6           0 OCTOXYGLYCERYL BEHENATE
                 (OCTOXYGLYCERYL(W)BEHENATE)

=> s dioctyl adipate
         13471 DIOCTYL
          2598 ADIPATE
L7           5 DIOCTYL ADIPATE
                 (DIOCTYL(W)ADIPATE)

=> d l7 1-5

L7   ANSWER 1 OF 5  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   582304-75-4  REGISTRY
ED   Entered STN:  10 Sep 2003
CN   Hexanedioic acid, dioctyl ester, polymer with 1,8-octanediol (9CI)  (CA
     INDEX NAME)
OTHER NAMES:
CN   Dioctyl adipate-1,8-octanediol copolymer
MF   (C22 H42 O4 . C8 H18 O2)x
CI   PMS
PCT  Polyester, Polyester formed
SR   CA
LC   STN Files:   CA, CAPLUS

**RELATED POLYMERS AVAILABLE WITH POLYLINK**

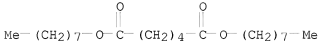
     CM   1

     CRN  629-41-4
     CMF  C8 H18 O2


HO—(CH2)8—OH
```

CM 2

CRN 123-79-5
CMF C22 H42 O4

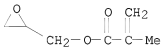


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN
RN 255063-51-5 REGISTRY
ED Entered STN: 08 Feb 2000
CN Hexanedioic acid, bis(2-ethylhexyl) ester, polymer with ethenylbenzene, methyl 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with bis(2-ethylhexyl) hexanedioate, ethenylbenzene and oxiranylmethyl 2-methyl-2-propenoate (9CI)
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with bis(2-ethylhexyl) hexanedioate, ethenylbenzene and methyl 2-methyl-2-propenoate (9CI)
CN Benzene, ethenyl-, polymer with bis(2-ethylhexyl) hexanedioate, methyl 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate (9CI)
OTHER NAMES:
CN Dioctyl adipate-glycidyl methacrylate-methyl methacrylate-styrene copolymer
MF (C22 H42 O4 . C8 H8 . C7 H10 O3 . C5 H8 O2)x
CI PMS
PCT Polyacrylic, Polyother, Polystyrene
SR CA
LC STN Files: CA, CAPLUS

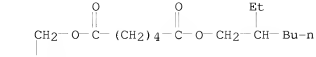
CM 1

CRN 106-91-2
CMF C7 H10 O3



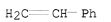
CM 2

CRN 103-23-1
CMF C22 H42 O4



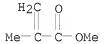
CM 3

CRN 100-42-5
CMF C8 H8



CM 4

CRN 80-62-6
CMF C5 H8 O2

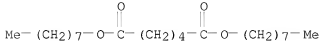


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN
RN 20625-01-8 REGISTRY
ED Entered STN: 16 Nov 1984
CN Adipic acid, dioctyl ester, compd. with urea (8CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Urea, compd. with dioctyl adipate (8CI)
MF C22 H42 O4 . x C H4 N2 O
LC STN Files: CA, CAPLUS

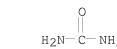
CM 1

CRN 123-79-5
CMF C22 H42 O4



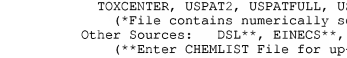
CM 2

CRN 57-13-6
CMF C H4 N2 O



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN
RN 123-79-5 REGISTRY
ED Entered STN: 16 Nov 1984
CN Hexanedioic acid, 1,6-dioctyl ester (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Adipic acid, dioctyl ester (6CI, 7CI, 8CI)
CN Hexanedioic acid, dioctyl ester (9CI)
OTHER NAMES:
CN Di-n-octyl adipate
CN Dioctyl adipate
CN NSC 16201
CN Octyl adipate
MF C22 H42 O4
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHEM, DETHERM*, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, PIRA, PROMT, SPECINFO, TOXCENTER, USPAT2, USPATFULL, USPATOLD
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

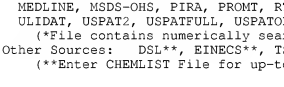


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

495 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
495 REFERENCES IN FILE CAPLUS (1907 TO DATE)
26 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L7 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN
RN 103-23-1 REGISTRY
ED Entered STN: 16 Nov 1984
CN Hexanedioic acid, 1,6-bis(2-ethylhexyl) ester (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Adipic acid, bis(2-ethylhexyl) ester (6CI, 7CI, 8CI)
CN Hexanedioic acid, bis(2-ethylhexyl) ester (9CI)
OTHER NAMES:
CN Adimoll DO
CN Adipol 2EH
CN ADO

CN ADO (lubricating oil)
CN Arlamol DOA
CN Bis(2-ethylhexyl) adipate
CN Bisoflex DOA
CN Crodamol DOA
CN Dermol DOA
CN Di(2-ethylhexyl) adipate
CN Diacizer DOA
CN Diethylhexyl adipate
CN Dioctyl adipate
CN DOA
CN Effomoll DA
CN Effomoll DOA
CN Ergoplast AdDO
CN Flexol A 26
CN Hatcol 2908
CN Jayflex DOA 2
CN K 3220
CN Kodaflex DOA
CN Lankroflex DOA
CN Monoplex DOA
CN NSC 56775
CN Octyl adipate
CN Plasthall DOA
CN Plastomoll DOA
CN Reomol DOA
CN Sansocizer DOA
CN Sicol 250
CN SP 100
CN SP 100 (solvent)
CN Truflex DOA
CN USS 700
CN Vestinol OA
CN Vistone A 10
CN Wickenol 158
CN Witamol 320
DR 63637-48-9, 70147-21-6, 39393-67-4
MF C22 H42 O4
CI COM
LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, PIRA, PROMT, RTECS*, SCISEARCH, SPECINFO, TOXCENTER, ULIDAT, USPAT2, USPATFULL, USPATOLD
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2678 REFERENCES IN FILE CA (1907 TO DATE)
15 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2680 REFERENCES IN FILE CAPLUS (1907 TO DATE)
23 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

```
=> s PEG 15 stearyl
          356 PEG
       595553 15
         2810 STEARYL
L8          0 PEG 15 STEARYL
               (PEG(W)15(W)STEARYL)

=> s 7 eo
      4791461 7
         1699 EO
L9          1 7 EO
               (7(W)EO)

=> d 19

L9   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   61791-13-7  REGISTRY *
* Use of this CAS Registry Number alone as a search term in other STN files may
  result in incomplete search results.  For additional information, enter HELP
  RN* at an online arrow prompt (=>).
ED   Entered STN:  16 Nov 1984
CN   Alcohols, coco, ethoxylated  (CA INDEX NAME)
OTHER NAMES:
CN   Agrimul 1205NRE
CN   Arlypon F
CN   Coceth
CN   Coceth 6
CN   Coceth 8
CN   Coco 3 EO NRE
CN   Coco 7 EO NRE
CN   Coco alcs., ethoxylated
CN   Coconut oil alcohol, ethoxylated
CN   Conion L 83
CN   Dehydol LT 3
CN   Ethoxylated alcohols, coco
CN   Ethoxylated coco alcs.
CN   Genapol 150
CN   Genapol 200
CN   Genapol C
CN   Genapol C 050
CN   Genapol C 070
CN   Genapol C 080
CN   Genapol C 100
CN   Genapol C 110
CN   Genapol C 150
CN   Genapol C 200
CN   Genapol LA 07
CN   Imbentin Coco 6.5EO
CN   Imbentin Coco 6.9EO
```

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CN   Nissan Nonion KL 207
CN   Nissan Persoft NL 95
CN   Nonion KL 207
CN   Rewopal LA 10
CN   Rewopal LA 6
CN   Slovasol 2411
DR   58969-22-5, 81138-54-7
MF   Unspecified
CI   MAN, CTS
LC   STN Files:   AGRICOLA, BIOSIS, CA, CAPLUS, CHEMLIST
     Other Sources:   DSL**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***


=> s rewoderm S1333
             6 REWODERM
             1 S1333
L10          0 REWODERM S1333
               (REWODERM(W)S1333)

=> s s1333
L11          1 S1333

=> d l11

L11  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   919330-61-3  REGISTRY
ED   Entered STN:  05 Feb 2007
CN   Translation elongation factor eEF-1α (Fusarium solani strain
     FRC S1333 fragment)  (CA INDEX NAME)
OTHER NAMES:
CN   GenBank ABB85770
CN   GenBank ABB85770 (Translated from: GenBank DQ247239)
FS   PROTEIN SEQUENCE
MF   Unspecified
CI   MAN
SR   GenBank
LC   STN Files:   CA, CAPLUS

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)


=> s rewoderm
L12          6 REWODERM

=> d l12 1-6

L12  ANSWER 1 OF 6  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   308068-44-2  REGISTRY *
* Use of this CAS Registry Number alone as a search term in other STN files may
```

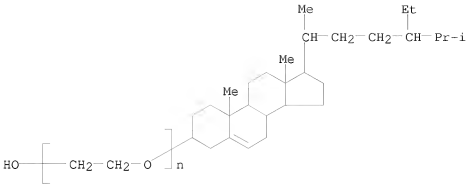
result in incomplete search results. For additional information, enter HELP RN* at an online arrow prompt (=>).
ED Entered STN: 12 Dec 2000
CN Glycerides, tallow mono-, ethoxylated (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Monoglycerides, tallow, ethoxylated
OTHER NAMES:
CN Ethoxylated tallow monoglycerides
CN Rewoderm LI 48-50
CN Rewoderm LIS 75
CN Tallow monoglycerides, ethoxylated
CN Unigly MT 280-70
CN Varonic LI 2
CN Varonic LI 420
CN Varonic LI 48
DR 157321-50-1
MF Unspecified
CI MAN, CTS
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L12 ANSWER 2 OF 6 REGISTRY COPYRIGHT 2008 ACS on STN
RN 206659-83-8 REGISTRY
ED Entered STN: 09 Jun 1998
CN Poly(oxy-1,2-ethanediyl), α-(3-carboxy-1-oxosulfopropyl)-ω-[[(3β)-stigmast-5-en-3-yl]oxy]-, disodium salt (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Rewoderm SPS
DR 663178-42-5
MF (C2 H4 O)n C33 H54 O7 S . 2 Na
CI IDS
PCT Polyether
SR CA
LC STN Files: CA, CAPLUS

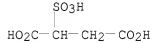
CM 1

CRN 88033-11-8
CMF (C2 H4 O)n C29 H50 O
CCI PMS



CM 2

CRN 5138-18-1
CMF C4 H6 O7 S



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L12 ANSWER 3 OF 6 REGISTRY COPYRIGHT 2008 ACS on STN
RN 157351-77-4 REGISTRY
ED Entered STN: 31 Aug 1994
CN Rewoderm LIS 80 (9CI) (CA INDEX NAME)
ENTE An ethoxylated hydrogenated palm glyceride (Rewo Chemische Werke, Germany)
MF Unspecified
CI PMS, MAN
PCT Manual registration
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
14 REFERENCES IN FILE CA (1907 TO DATE)
14 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L12 ANSWER 4 OF 6 REGISTRY COPYRIGHT 2008 ACS on STN
RN 157321-49-8 REGISTRY
ED Entered STN: 30 Aug 1994
CN Rewoderm LI 420 (CA INDEX NAME)
ENTE A glyceryl monotallowate (Rewo Chemische Werke, Germany)
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L12 ANSWER 5 OF 6 REGISTRY COPYRIGHT 2008 ACS on STN
RN 68201-46-7 REGISTRY *
* Use of this CAS Registry Number alone as a search term in other STN files may result in incomplete search results. For additional information, enter HELP RN* at an online arrow prompt (=>).
ED Entered STN: 16 Nov 1984
CN Glycerides, coco mono- and di-, ethoxylated (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Diglycerides, coco, coco monoglycerides and, ethoxylated
CN Monoglycerides, coco, coco diglycerides and, ethoxylated
OTHER NAMES:
CN Glycerox HE
CN Hyper oil HE
CN PEG-7 Glycerox HE
CN Rewoderm LI 63
MF Unspecified
CI MAN, CTS
LC STN Files: CHEMCATS, CHEMLIST, CIN, MSDS-OHS, RTECS*, TOXCENTER
(*File contains numerically searchable property data)
Other Sources: DSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L12 ANSWER 6 OF 6 REGISTRY COPYRIGHT 2008 ACS on STN
RN 67784-88-7 REGISTRY *
* Use of this CAS Registry Number alone as a search term in other STN files may result in incomplete search results. For additional information, enter HELP RN* at an online arrow prompt (=>).
ED Entered STN: 16 Nov 1984
CN Glycerides, palm-oil mono- and di-, hydrogenated, ethoxylated (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Diglycerides, palm-oil monoglycerides and diglycerides, hydrogenated, ethoxylated
CN Monoglycerides, palm-oil monoglycerides and diglycerides, hydrogenated, ethoxylated
OTHER NAMES:
CN Palm-oil monoglycerides and diglycerides, hydrogenated, ethoxylated
CN Rewoderm LI 520-70
MF Unspecified
CI MAN, CTS
LC STN Files: CHEMLIST
Other Sources: NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> s Nillol HCO 6-
0 NILLOL
32 HCO
9367193 6
L13 0 NILLOL HCO 6-

(NILLOL(W)HCO(W)6)

```
=> s HCO-60
           32 HCO
        72539 60
L14         2 HCO-60
              (HCO(W)60)

=> d l14 1-2

L14  ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   155683-83-3  REGISTRY
ED   Entered STN:  14 Jun 1994
CN   Sorbitan, mono-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs., (Z)-,
     mixt. with ethoxylated hydrogenated castor oil and (Z)-1,2,3-propanetriol
     mono-9-octadecenoate (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   9-Octadecenoic acid (9Z)-, monoester with 1,2,3-propanetriol, mixt. contg.
     (9CI)
CN   9-Octadecenoic acid (Z)-, monoester with 1,2,3-propanetriol, mixt. contg.
OTHER NAMES:
CN   Nikkol HCO 60-Nikkol MGO-Nikkol TO 10 mixt.
MF   C21 H20 O4 . Unspecified . Unspecified
CI   MXS, MAN
SR   CA
LC   STN Files:   CA, CAPLUS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L14  ANSWER 2 OF 2  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   61788-85-0  REGISTRY *
* Use of this CAS Registry Number alone as a search term in other STN files may
  result in incomplete search results.  For additional information, enter HELP
  RN* at an online arrow prompt (=>).
ED   Entered STN:  16 Nov 1984
CN   Castor oil, hydrogenated, ethoxylated  (CA INDEX NAME)
OTHER NAMES:
CN   Actinol HC 18
CN   Arlacel 989
CN   Arlatone 289
CN   Arlatone 975
CN   Arlatone 980
CN   Arlatone G
CN   Atlas G 1292
CN   Blaunon CW 10
CN   Blaunon CW 20-90
CN   Blaunon RCW 100
CN   Blaunon RCW 20
CN   Blaunon RCW 40
CN   Blaunon RCW 60
CN   Castor oil, hardened, ethoxylated
CN   Castor oil, hydrogenated, polyethoxylated
CN   CH 80
CN   CH 80 (surfactant)
CN   Chemax HCO 5
```

```
CN   Cremophor CO 40
CN   Cremophor EL-P
CN   Cremophor RH
CN   Cremophor RH 40
CN   Cremophor RH 40/60
CN   Cremophor RH 410
CN   Cremophor RH 60
CN   Cremophor WO 7
CN   Cresmer RH 40
CN   Crodamet 50 Special
CN   Croduret 25
CN   Croduret 30
CN   Croduret 40
CN   Croduret 50
CN   CW 20-90
CN   Dacospin 12R
CN   Dehymuls HRE 7
CN   Emalex HC 10
CN   Emalex HC 100
CN   Emalex HC 20
CN   Emalex HC 30
CN   Emalex HC 40
CN   Emalex HC 40N
CN   Emalex HC 5
CN   Emalex HC 50
CN   Emalex HC 60
CN   Emalex HC 7
CN   Emanon CH 25
CN   Emanon CH 40
CN   Emanon CH 60
CN   Emanon CH 80
CN   Emulsogen HCO 040
CN   HCO 60
CN   Nikkol HCO 60
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
     DISPLAY
DR   865083-36-9, 12656-75-6, 57126-57-5, 57176-39-3, 55963-15-0, 56093-64-2,
     56093-65-3, 60649-24-3, 60649-25-4, 62886-94-6, 113148-98-4, 113148-99-5,
     51395-91-6, 60842-68-4, 37224-21-8, 391639-38-6, 562107-40-8
MF   Unspecified
CI   PMS, MAN, CTS
PCT  Manual registration
LC   STN Files:   AGRICOLA, BIOSIS, CA, CAPLUS, CHEMCATS, CHEMLIST, CSCHEM,
       DDFU, DRUGU, EMBASE, IPA, MSDS-OHS, RTECS*, TOXCENTER, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:   DSL**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***


=> s cremophor RH60
            20 CREMOPHOR
             0 RH60
L15          0 CREMOPHOR RH60
               (CREMOPHOR(W)RH60)
```

```
=> s cremophor
L16         20 CREMOPHOR

=> d l16

L16  ANSWER 1 OF 20  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   942292-58-2  REGISTRY
ED   Entered STN:  13 Jul 2007
CN   Cremophor A 5  (CA INDEX NAME)
ENTE A surfactant
MF   Unspecified
CI   MAN
SR   CA
LC   STN Files:   CA, CAPLUS, TOXCENTER

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)


=> s cremophor RH
           20 CREMOPHOR
        60339 RH
L17          2 CREMOPHOR RH
                (CREMOPHOR(W)RH)

=> d l17 1-2

L17  ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   353297-34-4  REGISTRY
ED   Entered STN:  28 Aug 2001
CN   1,2-Propanediol, mixt. with ethoxylated hydrogenated castor oil (9CI)  (CA
     INDEX NAME)
OTHER NAMES:
CN   Cremophor RH 455
MF   C3 H8 O2 . Unspecified
CI   MXS, PMS, MAN
PCT  Manual registration
SR   CA
LC   STN Files:   CA, CAPLUS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
               4 REFERENCES IN FILE CA (1907 TO DATE)
               4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L17  ANSWER 2 OF 2  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   61788-85-0  REGISTRY *
* Use of this CAS Registry Number alone as a search term in other STN files may
  result in incomplete search results.  For additional information, enter HELP
  RN* at an online arrow prompt (=>).
ED   Entered STN:  16 Nov 1984
CN   Castor oil, hydrogenated, ethoxylated  (CA INDEX NAME)
OTHER NAMES:
CN   Actinol HC 18
CN   Arlacel 989
CN   Arlatone 289
CN   Arlatone 975
```

CN Arlatone 980
CN Arlatone G
CN Atlas G 1292
CN Blaunon CW 10
CN Blaunon CW 20-90
CN Blaunon RCW 100
CN Blaunon RCW 20
CN Blaunon RCW 40
CN Blaunon RCW 60
CN Castor oil, hardened, ethoxylated
CN Castor oil, hydrogenated, polyethoxylated
CN CH 80
CN CH 80 (surfactant)
CN Chemax HCO 5
CN Cremophor CO 40
CN Cremophor EL-P
CN Cremophor RH
CN Cremophor RH 40
CN Cremophor RH 40/60
CN Cremophor RH 410
CN Cremophor RH 60
CN Cremophor WO 7
CN Cresmer RH 40
CN Crodamet 50 Special
CN Croduret 25
CN Croduret 30
CN Croduret 40
CN Croduret 50
CN CW 20-90
CN Dacospin 12R
CN Dehymuls HRE 7
CN Emalex HC 10
CN Emalex HC 100
CN Emalex HC 20
CN Emalex HC 30
CN Emalex HC 40
CN Emalex HC 40N
CN Emalex HC 5
CN Emalex HC 50
CN Emalex HC 60
CN Emalex HC 7
CN Emanon CH 25
CN Emanon CH 40
CN Emanon CH 60
CN Emanon CH 80
CN Emulsogen HCO 040
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 865083-36-9, 12656-75-6, 57126-57-5, 57176-39-3, 55963-15-0, 56093-64-2, 56093-65-3, 60649-24-3, 60649-25-4, 62886-94-6, 113148-98-4, 113148-99-5, 51395-91-6, 60842-68-4, 37224-21-8, 391639-38-6, 562107-40-8
MF Unspecified
CI PMS, MAN, CTS
PCT Manual registration
LC STN Files: AGRICOLA, BIOSIS, CA, CAPLUS, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, IPA, MSDS-OHS, RTECS*, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

```
     Other Sources:   DSL**, TSCA**
        (**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***


=> s lutrol F68
             6 LUTROL
            42 F68
L18          0 LUTROL F68
                 (LUTROL(W)F68)

=> s Lutrol f
             6 LUTROL
        345637 F
L19          2 LUTROL F
                 (LUTROL(W)F)

=> d l19 1-2

L19  ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   691397-13-4  REGISTRY
ED   Entered STN:  10 Jun 2004
CN   Oxirane, 2-methyl-, polymer with oxirane, triblock  (CA INDEX NAME)
OTHER NAMES:
CN   Acclaim 2220N
CN   Acclaim 4220N
CN   Acclaim Polyol PPO 2220N
CN   Acclaim Polyol PPO 4220N
CN   Adeka Pluronic 25R1
CN   Adeka Pluronic F 68
CN   Adeka Pluronic L 101
CN   Adeka Pluronic L 121
CN   Adeka Pluronic L 61
CN   Adeka Pluronic L 62
CN   Adeka Pluronic L 64
CN   Adeka Pluronic L 72
CN   Adekanol L 61
CN   Adekanol L 64
CN   Antarox 17R4
CN   Antarox 31R1
CN   Antarox SC 138
CN   Arlatone F 127G
CN   Blaunon P 106
CN   Blaunon P 304
CN   Chemax BP 261
CN   Chemex BP 261
CN   CRL 1005
CN   Daltocel F 460
CN   Epan 410
CN   Epan P 45
CN   Ethox L 122
CN   Ethylene oxide-propylene oxide triblock copolymer
CN   F 108
CN   F 127
CN   F 68
CN   F 88
```

CN L 121
CN L 123
CN L 31
CN L 35
CN L 64
CN Lutrol 127
CN Lutrol F 68
CN Lutrol F 87
CN Lutrol FC 127
CN Lutrol L 42
CN Lutrol L 61
CN Lutrol L 63
CN Lutrol L 72
CN Lutrol L 92
CN Meroxapol 108
CN Meroxapol 174
CN Meroxapol 252
CN Meroxapol 258
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 846568-88-5, 846568-89-6, 59392-44-8
MF (C3 H6 O . C2 H4 O)x
CI PMS, COM
PCT Polyether, Polyether formed
SR CA
LC STN Files: CA, CAPLUS, CASREACT, CHEMCATS, TOXCENTER, USPAT2, USPATFULL, USPATOLD

CM 1

CRN 75-56-9
CMF C3 H6 O

CM 2

CRN 75-21-8
CMF C2 H4 O

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3853 REFERENCES IN FILE CA (1907 TO DATE)
146 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3872 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L19 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2008 ACS on STN
RN 106392-12-5 REGISTRY
ED Entered STN: 31 Jan 1987
CN Oxirane, 2-methyl-, polymer with oxirane, block (CA INDEX NAME)
OTHER NAMES:
CN Adeka 25R1
CN Adeka 25R2
CN Adeka CM 381
CN Adeka L 61
CN Adekanol L 44
CN Antarox 17R2
CN Antarox 25R2
CN Antarox B 25
CN Antarox F 108
CN Antarox F 68
CN Antarox F 88
CN Antarox F 88FL
CN Antarox L 61
CN Antarox L 64
CN Antarox L 72
CN Antarox P 104
CN Antarox P 84
CN Arco Polyol R 2633
CN Arcol E 351
CN B 053
CN BASF-L 101
CN Block polyethylene-polypropylene glycol
CN Block polyoxyethylene-polyoxypropylene
CN Breox BL 19-10
CN Caradol ED 56-07
CN Cirrasol ALN-WS
CN Conion AEP 1220
CN Crisvon Assistor SD 14
CN CRL 1029
CN CRL 1190
CN CRL 1605
CN CRL 8131
CN CRL 8142
CN D 500
CN D 500 (polyglycol)
CN DC 100
CN Dehypon KE 3557
CN Detalan
CN DO 97
CN Dowfax 30C05
CN ED 56
CN Empilan P 7068
CN Emulgen PP 230
CN Emulsogen 3510
CN Emulsogen V 1816
CN EP 3028
CN Epan 450
CN Epan 485
CN Epan 680
CN Epan 710
CN Lutrol F
CN Lutrol F 108

CN Lutrol F 127
CN Lutrol F 38
CN Lutrol F 77
CN Lutrol F 88
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 912934-92-0, 874281-09-1, 11104-97-5, 162774-62-1, 163516-02-7, 124057-62-1, 121089-00-7, 134092-42-5, 96639-37-1, 96958-14-4, 99040-06-9, 106138-19-6, 113441-83-1, 115742-90-0, 108688-61-5, 108688-62-6, 37349-41-0, 70226-19-6, 72231-62-0, 77108-15-7, 80456-04-8, 144638-32-4, 83589-65-5, 86904-45-2, 106899-85-8, 107498-07-7, 108340-62-1, 178463-44-0, 188815-93-2, 194165-56-5, 197179-49-0, 200338-43-8, 200338-47-2, 211389-05-8, 238075-26-8, 351002-57-8, 355134-17-7, 406160-61-0, 441053-13-0, 441053-14-1
MF (C3 H6 O . C2 H4 O)x
CI PMS, COM
PCT Polyether, Polyether formed
SR CA
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, CA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, IMSDRUGNEWS, IMSPRODUCT, IMSRESEARCH, IPA, MEDLINE, MRCK*, PHAR, PIRA, PROMT, RTECS*, TOXCENTER, USAN, USPAT2, USPATFULL, USPATOLD
(*File contains numerically searchable property data)

CM 1

CRN 75-56-9
CMF C3 H6 O

CM 2

CRN 75-21-8
CMF C2 H4 O

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

11857 REFERENCES IN FILE CA (1907 TO DATE)
967 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
11873 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s poloxamer 407
6 POLOXAMER
6408 407

L20 1 POLOXAMER 407
(POLOXAMER(W)407)

=> d l20

L20 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 106392-12-5 REGISTRY
ED Entered STN: 31 Jan 1987
CN Oxirane, 2-methyl-, polymer with oxirane, block (CA INDEX NAME)
OTHER NAMES:
CN Adeka 25R1
CN Adeka 25R2
CN Adeka CM 381
CN Adeka L 61
CN Adekanol L 44
CN Antarox 17R2
CN Antarox 25R2
CN Antarox B 25
CN Antarox F 108
CN Antarox F 68
CN Antarox F 88
CN Antarox F 88FL
CN Antarox L 61
CN Antarox L 64
CN Antarox L 72
CN Antarox P 104
CN Antarox P 84
CN Arco Polyol R 2633
CN Arcol E 351
CN B 053
CN BASF-L 101
CN Block polyethylene-polypropylene glycol
CN Block polyoxyethylene-polyoxypropylene
CN Breox BL 19-10
CN Caradol ED 56-07
CN Cirrasol ALN-WS
CN Conion AEP 1220
CN Crisvon Assistor SD 14
CN CRL 1029
CN CRL 1190
CN CRL 1605
CN CRL 8131
CN CRL 8142
CN D 500
CN D 500 (polyglycol)
CN DC 100
CN Dehypon KE 3557
CN Detalan
CN DO 97
CN Dowfax 30C05
CN ED 56
CN Empilan P 7068
CN Emulgen PP 230
CN Emulsogen 3510
CN Emulsogen V 1816
CN EP 3028
CN Epan 450

10613723

CN Epan 485
CN Epan 680
CN Epan 710
CN Poloxamer 407
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 912934-92-0, 874281-09-1, 11104-97-5, 162774-62-1, 163516-02-7, 124057-62-1, 121089-00-7, 134092-42-5, 96639-37-1, 96958-14-4, 99040-06-9, 106138-19-6, 113441-83-1, 115742-90-0, 108688-61-5, 108688-62-6, 37349-41-0, 70226-19-6, 72231-62-0, 77108-15-7, 80456-04-8, 144638-32-4, 83589-65-5, 86904-45-2, 106899-85-8, 107498-07-7, 108340-62-1, 178463-44-0, 188815-93-2, 194165-56-5, 197179-49-0, 200338-43-8, 200338-47-2, 211389-05-8, 238075-26-8, 351002-57-8, 355134-17-7, 406160-61-0, 441053-13-0, 441053-14-1
MF (C3 H6 O . C2 H4 O)x
CI PMS, COM
PCT Polyether, Polyether formed
SR CA
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, CA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, IMSDRUGNEWS, IMSPRODUCT, IMSRESEARCH, IPA, MEDLINE, MRCK*, PHAR, PIRA, PROMT, RTECS*, TOXCENTER, USAN, USPAT2, USPATFULL, USPATOLD
(*File contains numerically searchable property data)

CM 1

CRN 75-56-9
CMF C3 H6 O

CM 2

CRN 75-21-8
CMF C2 H4 O

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

11857 REFERENCES IN FILE CA (1907 TO DATE)
967 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
11873 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s mexanyl gp
3 MEXANYL
3669 GP

Jagoe

```
L21          1 MEXANYL GP
                 (MEXANYL(W)GP)

=> d l21

L21  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   103991-94-2  REGISTRY
ED   Entered STN:  30 Aug 1986
CN   Hexadecanoic acid, monoester with 3-[(2-ethylhexyl)oxy]-1,2-propanediol
     (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   Mexanyl GP
MF   C27 H54 O4
CI   IDS
SR   CA
LC   STN Files:   CA, CAPLUS, USPATFULL

     CM   1

     CRN  70445-33-9
     CMF  C11 H24 O3


                  OH
                  |
    CH2—O—CH2—CH—CH2—OH
    |
Et—CH—Bu-n


     CM   2

     CRN  57-10-3
     CMF  C16 H32 O2


HO2C—(CH2)14—Me

               3 REFERENCES IN FILE CA (1907 TO DATE)
               3 REFERENCES IN FILE CAPLUS (1907 TO DATE)


=> s 2 ethylhexyl glyceryl ether behenate
      25201515 2
         51931 ETHYLHEXYL
          1191 GLYCERYL
         93535 ETHER
           196 BEHENATE
L22          0 2 ETHYLHEXYL GLYCERYL ETHER BEHENATE
                 (2(W)ETHYLHEXYL(W)GLYCERYL(W)ETHER(W)BEHENATE)

=> s cosmacol eti
            22 COSMACOL
          4363 ETI
L23          1 COSMACOL ETI
```

10613723

(COSMACOL(W)ETI)

=> d l23

L23 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 161544-30-5 REGISTRY
ED Entered STN: 17 Mar 1995
CN Cosmacol ETI (9CI) (CA INDEX NAME)
ENTE The tartaric acid diester of C12-13 single-branched fatty alcohols
(Enichem Augusta Industriale, Milan)
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
10 REFERENCES IN FILE CA (1907 TO DATE)
10 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file cluster?
'CLUSTER?' IS NOT A VALID FILE NAME
SESSION CONTINUES IN FILE 'REGISTRY'
Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files
that are available. If you have requested multiple files, you can
specify a corrected file name or you can enter "IGNORE" to continue
accessing the remaining file names entered.

=> help file names
The following files are available:
1MOBILITY - Global Mobility Database from 1906-present
2MOBILITY - Global Mobility Standards Database
ABI-INFORM - Business Information from 1971 to present
ADISCTI - Adis Clinical Trials Insight
ADISINSIGHT - Adis R&D Insight 1986-present
ADISNEWS - Adis Newsletters 1983-present
AEROSPACE - Aerospace and High Technology Database 1962-present
AGRICOLA - AGRICulture OnLine Access from 1970 - present
ALUMINIUM - Aluminium Industry Abstracts 1968 to the present
ANABSTR - Analytical Abstracts
ANTE - Abstr. in New Technologies and Eng. 1981 - present
APOLLIT - APPLIED POLYMERS LITERATURE 1973-present
AQUALINE - Aqualine 1960 to the present
AQUASCI - Aquatic Sciences & Fisheries Abstracts 1978-present
AQUIRE - Acquatic Toxicity Information Retrieval
BABS - BEILSTEIN Database Abstracts 1980-present
BEILSTEIN - BEILSTEIN File of Organic Compounds
BIBLIODATA - GERMAN NATIONAL BIBLIOGRAPHY FROM 1945 - PRESENT
BIOENG - Biotechnology and Bioengineering database 1982 - pres.
BIOSIS - The BIOSIS Previews(R)/RN File 1969-present
BIOTECHABS - Derwent Biotechnology Resource 1982-present
BIOTECHDS - Derwent Biotechnology Resource 1982-present (Subsc.)
BIOTECHNO - BIOTECHNOBASE 1980 TO 2003
CA - The Chemical Abstracts File 1907-present
CABA - CAB ABSTRACTS 1973-present
CAOLD - The pre-1967 Chemical Abstracts File
CAPLUS - The Chemical Abstracts Plus File 1907-present

Jagoe

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CASREACT      - The Chemical Abstracts Reaction Search Service
CBNB          - Chemical Business NewsBase from 1984-present
CEABA-VTB     - Chem Eng and Biotech Abstr - Verfahrenstechn Ber 1966-
CERAB         - Ceramic Abstracts/World Ceramic Abstracts from 1975
CHEMCATS      - CHEMICAL CATALOGS ONLINE 1993-to the present
CHEMINFORMRX  - The CHEMINFORMRX Reaction Search Service
CHEMLIST      - Regulated Chemicals Listing
CHEMSAFE      - CHEMSAFE - chemical safety information
CIN           - The Chemical Industry Notes File for 1974-present
CIVILENG      - Civil Engineering Abstracts 1966 to the present
COMPENDEX     - COMPENDEX*PLUS File from 1970 - present
COMPUAB       - Computer & Information Systems Abstracts 1981-present
COMPUSCIENCE  - COMPUTERSCIENCE FROM 1972-2002
CONFSCI       - Conference Papers Index from 1973-present
COPPERLIT     - Copper Literature Database
CORROSION     - Corrosion Abstracts 1980 to the present
CROPB         - Derwent Crop Protection File 1968 - 1984
CROPR         - Derwent Crop Protection Registry
CROPU         - DERWENT CROP PROTECTION FILE 1985 - 2003
CSCHEM        - ChemSources - USA and International (Chemicals)
CSCORP        - ChemSources - USA and International (Company Directory
CSNB          - Chemical Safety News Base from 1981-present
DDFB          - Derwent Drug File, Backfile 1964 - 1982
DDFU          - Derwent Drug File from 1983 - present
DETHERM       - DETHERM-DECHEMA thermophysical property database
DGENE         - Derwent Geneseq Database 1981 - present
DISSABS       - Dissertation Abstracts from 1861 to present
DJSMDS        - Derwent Reaction Search Service DJSM (Subscribers)
DJSMONLINE    - Derwent Reaction Search Service DJSM
DKF           - The German Automotive Engineering Database 1974-date
DPCI          - DERWENT PATENTS CITATION INDEX 1973 TO 2007
DRUGB         - Derwent Drug File, Backfile 1964 - 1982 (Subscribers)
DRUGMONOG     - IMS Product Monographs (Approved Pharm. Industry Users
DRUGMONOG2    - IMS Product Monographs
DRUGU         - Derwent Drug File from 1983-present (Subscribers)
ELCOM         - Electronics & Communications Abstracts 1981-present
EMA           - Engineered Materials Abstracts File from 1986-present
EMBAL         - EMBASE Alert
EMBASE        - EMBASE File from 1974-present
ENCOMPLIT     - EnCompass Literature File 1964-present (Supporters)
ENCOMPLIT2    - EnCompass Literature File 1964-Present (Non-Supporters
ENCOMPPAT     - EnCompass Patent File 1964-present (Supporters)
ENCOMPPAT2    - EnCompass Patent File 1964-Present (Non-Supporters)
ENERGY        - DOE ENERGY file from 1974-present
ENVIROENG     - Environmental Engineering Abstracts 1990 - present
EPFULL        - European Patents Fulltext database
ESBIOBASE     - Elsevier Biobase 1994 to the present
FOMAD         - FOODLINE MARKET 1982 TO PRESENT
FOREGE        - FOODLINE LEGAL
FRANCEPAT     - The French Patent Database from 1966 - present
FRFULL        - French Patent Full Text from 1980 - present
FROSTI        - FOODLINE SCIENCE 1972 TO PRESENT
FSTA          - Food Science Technology Abstracts from 1969 - present
GBFULL        - United Kingdom (GB) Patents Full Text from 1979 - pres
GENBANK       - Genetic Sequence Data Bank
GEOREF        - Geological Reference File 1785-present
GMELIN97      - Gmelin Handb. of Inorg. Chem. + Sci. Publ. 1817-1997
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HCA           - CA File with hour-based pricing
HCAOLD        - Pre-1967 CA File with hour-based pricing
HCAPLUS       - CAPLUS File with hour-based pricing
HCHEMLIST     - Regulated Chemicals Listing with hour-based pricing
HCIN          - The CIN File for 1974-present with hour-based pricing
HEALSAFE      - Health and Safety Science Abstracts 1981-present
HOME          - The default login file.  Contains no data.
HSDB          - Hazardous Substances Databank
ICONDA        - International Construction Database from 1976-present
ICSD          - ICSD - Inorganic Crystal Structure Data File
IFICDB        - The IFI Comprehensive Database from 1950-present
IFICLS        - The IFI Current Patent Legal Status Database
IFIPAT        - The IFI Patent Database from 1950-present
IFIREF        - The IFI Uniterm and U.S. Class Reference File
IFIUDB        - The IFI Uniterm Database from 1950-present
IMSCOPROFILE  - IMS Company Profiles 1995-present
IMSCOSEARCH   - IMS Company Search
IMSDRUGNEWS   - IMS Drug News 1991-present
IMSPATENTS    - IMS LifeCycle, Patent Focus with Patent Family Data
IMSPRODUCT    - IMS LifeCycle, New Product Focus from 1982-present
IMSRESEARCH   - IMS LifeCycle, R&D Focus 1977-present
INFODATA      - Information Science and Work from 1976 to present
INIS          - International Nuclear Information System  1970-present
INPADOCDB     - The Intern. Patent Documentation Database 1836-pres.
INSPEC        - INSPEC file from 1898 - present
INSPHYS       - INSPHYS - Inspec Phys Supplement Backfile (1979 - 1994
IPA           - International Pharmaceutical Abstracts 1970-present
ITRD          - International Transport Research Documentation 1972-da
JAPIO         - JAPIO - Japanese Patents from 1976 - present
KOREAPAT      - Korean Patent Abstracts Database from 1979 - present
KOSMET        - Cosmetic & Perfume Science & Technology 1968-present
LBIBLIO       - Bibliodata learning File
LCA           - The CA Learning File
LCASREACT     - The CAS Reaction Search Service Learning File
LDPCI         - Derwent Patents Citation Index Learning File
LDRUG         - Derwent Drug Learn File
LEMBASE       - The EMBASE Learning File
LIFESCI       - CSA Life Sciences Collection from 1978-present
LINPADOCDB    - Learning INPADOCDB File
LINSPEC       - Learning INSPEC File
LISA          - Library and Information Science Abstracts 1969 - pres.
LITALERT      - The Patent Litigation Database from 1973 - present
LMARPAT       - The CAS Patent Markush Learning File
LMEDLINE      - The MEDLINE Learning File
LPATDPA       - The PATDPA Learning File
LREGISTRY     - The Registry Learning File.
LWPI          - Derwent World Patents Index Learning File
MARPAT        - The CAS Patent Markush File 1988-present
MATBUS        - Materials Business File from 1983-present
MDF           - Metals Datafile
MECHENG       - Mechanical and Transportation Eng. Abs. 1966-
MEDLINE       - MEDlars onLINE File from 1960 - present
METADEX       - METADEX File from 1966-present
MRCK          - The Merck Index Online (SM)
MSDS-CCOHS    - CCOHS Material Safety Data Sheets
MSDS-OHS      - Material Safety Data Sheets - OHS
NAPRALERT     - Natural Products Alert Database
```

NLDB	- Newsletter Database from 1988 - present
NTIS	- U.S.Government Reports Announcements 1964-present
NUTRACEUT	- Nutraceuticals International 1996 to the present
OCEAN	- Oceanic Abstracts from 1964 - current
PAPERCHEM2	- Elsevier Engineering Information, Inc. File 1967 - pre
PASCAL	- PASCAL 1977 to the present
PATDD	- East German Patents from 1982-present
PATDPA	- The German Patent Database from 1968-present
PATDPAFULL	- The German Full-Text Patent Database from 1987-present
PATDPASPC	- German SPC for Drugs and Plant Protecting Agents 1992-
PATIPC	- International Patent Classification and Catchword Inde
PCI	- PATENTS CITATION INDEX 1973 TO PRESENT
PCTFULL	- WIPO/PCT Patents Full Text 1978 to the present
PCTGEN	- PCTGEN: World Patent Application Biosequences
PHAR	- Pharmaprojects drug development status file
PHARMAML	- Pharma Marketletter 1992 to the present
PHIC	- Pharmaceutical & Healthcare Industry News (Current)
PHIN	- Pharmaceutical & Healthcare Industry News Archive 1980
PIRA	- PIRA & PAPERBASE Database from 1975
POLLUAB	- Pollution Abstracts from 1970-present
PROMT	- PROMT from 1978 - present
PROUSDDR	- Drug Data Report from Prous Science
PS	- Pharmaceutical Substances
RAPRA	- Rubber, Plastics, Polymer Composites 1972 - present
RDISCLOSURE	- Research Disclosure 1960 to the present
REGISTRY	- The CAS Registry File of substances
RSWB	- Regional planning and building construction
RTECS	- Registry of Toxic Effects of Chemical Substances
RUSSIAPAT	- RUSSIAN PATENT ABSTRACTS DATABASE FROM 1924 - PRESENT
SCISEARCH	- ISI Science Citation Index from 1974 - present
SOFIS	- Social Science Research Information System 1997-2006
SOLIDSTATE	- Solid State and Superconductivity Abstracts from 1981
SOLIS	- German literature in social sciences 1945-present
SPECINFO	- Spectral Database Information System
STNGUIDE	- Descriptive information about STN databases
STNMAIL	- STN Electronic Mail Service
SYNTHLINE	- Synthline Drug Synthesis Database 1984-present
TEMA	- TEMA: Technology and Management 1990 to the present
TEXTILETECH	- Textile Technology Digest from 1978 to the present
TOXCENTER	- Toxicology Center from 1907 - present
TRIBO	- TRIBOLOGY INDEX (Friction,Wear,Lubrication) 1972-pres.
TULSA	- Petroleum Abstracts 1965-present
TULSA2	- Petroleum Abstracts 1965-present (Non-subscribers)
UFORDAT	- Environment Research in Progress from 1974 - present
ULIDAT	- Environmental Literature from 1976-present
USAN	- USAN - United States Adopted Names
USGENE	- The USPTO Genetic Sequence Database
USPAT2	- U.S. Patents Latest Publications from 2001 - present
USPATFULL	- U.S. Patents Original Publications from 1971 - present
USPATOLD	- U.S. PATENTS 1790-1971
VETB	- Derwent Veterinary Drug File 1968 - 1982
VETU	- Derwent Veterinary Drug File 1983 - 2001
WATER	- Water Resource Abstracts 1967 to the present
WELDASEARCH	- Weldasearch 1967 to the present
WPIDS	- Derwent World Patents Index 1963 - present (Subscr.)
WPIPV	- WPIFV - DERWENT WORLD PATENT INDEX FIRST VIEW
WPINDEX	- Derwent World Patents Index 1963 - present

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 WPIX          - DERWENT WPI WITH EXTENSION ABSTRACTS 1963 - PRESENT
 WSCA          - World Surface Coatings Abstracts 1976 - present
 WTEXTILES     - WORLD TEXTILES 1970 TO THE PRESENT
 ZCA           - CA File with zero connect hour pricing
 ZCAPLUS       - CAPLUS File with zero connect hour pricing
 ZREGISTRY     - Zero connect hour REGISTRY

To look at detailed information about a file, first access that file
using the FILE command.  Enter "HELP CONTENT" at an arrow prompt (=>)
for a general description of the file.  Enter "HELP DIRECTORY" for a
list of help messages available for that file.  The database summary
sheet is also available for the file in STNGUIDE.  Enter "FILE
STNGUIDE" at an arrow prompt (=>), then search the file name in the
/DBN search field.  You can then display the search fields, display
fields, file content, sources, etc.

All files are available for multifile searching except HOME,
STNGUIDE, STNMAIL, and the Learning Files.

=> file home
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   324.91     325.12

FILE 'HOME' ENTERED AT 10:39:53 ON 02 MAR 2008

=> s medicine, kosmet
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Some commands only work in certain files.  For example, the EXPAND
command can only be used to look at the index in a file which has an
index.  Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of
commands which can be used in this file.

=> file medicine, kosmet
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     2.73     327.85

FILE 'ADISCTI' ENTERED AT 10:47:48 ON 02 MAR 2008
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FILE 'BIOSIS' ENTERED AT 10:47:48 ON 02 MAR 2008
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FILE 'CAPLUS' ENTERED AT 10:47:48 ON 02 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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10613723

=> d his

     (FILE 'HOME' ENTERED AT 10:21:25 ON 02 MAR 2008)

     FILE 'REGISTRY' ENTERED AT 10:21:33 ON 02 MAR 2008
L1   1 S DISODIUM COCOAMPHODIACETATE
L2   0 S RICINOLEIC MONOETHANOLAMIDE MONOSULPHOSUCCINATE
L3   0 S RICINOLEIC MONOETHANOLAMIDE
L4   0 S PEG 20 HEXADECENYL SUCCINATE
L5   0 S OCTOXYGLYCERYL PALMITATE
L6   0 S OCTOXYGLYCERYL BEHENATE
L7   5 S DIOCTYL ADIPATE
L8   0 S PEG 15 STEARYL
L9   1 S 7 EO
L10   0 S REWODERM S1333
L11   1 S S1333

Jagoe

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L12           6 S REWODERM
L13           0 S NILLOL HCO 6-
L14           2 S HCO-60
L15           0 S CREMOPHOR RH60
L16          20 S CREMOPHOR
L17           2 S CREMOPHOR RH
L18           0 S LUTROL F68
L19           2 S LUTROL F
L20           1 S POLOXAMER 407
L21           1 S MEXANYL GP
L22           0 S 2 ETHYLHEXYL GLYCERYL ETHER BEHENATE
L23           1 S COSMACOL ETI

     FILE 'HOME' ENTERED AT 10:39:53 ON 02 MAR 2008

     FILE 'ADISCTI, ADISINSIGHT, ADISNEWS, BIOSIS, BIOTECHNO, CAPLUS, DDFB,
     DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ESBIOBASE,
     IFIPAT, IMSDRUGNEWS, IMSPRODUCT, IPA, KOSMET, LIFESCI, MEDLINE,
     NAPRALERT, NLDB, NUTRACEUT, PASCAL, PCTGEN, PHARMAML, ...' ENTERED AT
     10:47:48 ON 02 MAR 2008

=> s l1
L24          38 L1

=> s l7

L25        4864 L7

=> s l11

L26           1 L11

=> s l12
L27          30 L12

=> s l14

L28         342 L14

=> s l17

L29         244 L17

=> s l19

L30       24768 L19

=> s l20

L31       21460 L20

=> s l21

L32           6 L21

=> s l23
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L33         18 L23

=> s l24 or l25 or l26 or l27 or l28 or l29 or l30 or l31 or l32 or l33
L34      30662 L24 OR L25 OR L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR
               L32 OR L33

=> s body odor or hygiene
L35     252179 BODY ODOR OR HYGIENE

=> s bacteria? or microorganism or fung?
  12 FILES SEARCHED...
L36    9845927 BACTERIA? OR MICROORGANISM OR FUNG?

=> s l34 and l35 and l36
L37         158 L34 AND L35 AND L36

=> s topical
L38     660142 TOPICAL

=> s l37 and l38
L39          68 L37 AND L38

=> dup rem
ENTER L# LIST OR (END):l39
DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, DGENE, DRUGMONOG2,
IMSPRODUCT, KOSMET, NUTRACEUT, PCTGEN, PHARMAML, USGENE'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L39
L40          63 DUP REM L39 (5 DUPLICATES REMOVED)

=> s scalp or skin or mucous membrane or nail? or hair
  24 FILES SEARCHED...
L41    4079516 SCALP OR SKIN OR MUCOUS MEMBRANE OR NAIL? OR HAIR

=> s l40 and l41
L42          39 L40 AND L41

=> d l42 1-39 ibib, kwic

L42  ANSWER 1 OF 39  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         1999:311079  CAPLUS
DOCUMENT NUMBER:          130:342792
TITLE:                    Improved personal care formulations containing
                          amphiphilic phospholipid carriers for topical
                          mucosal applications
INVENTOR(S):              Luriya, Elena; Luriya, Leonid
PATENT ASSIGNEE(S):       Luridient Ltd., Israel
SOURCE:                   PCT Int. Appl., 35 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ----------------    ----   --------    --------------------   --------
     WO 9922703           A1    19990514    WO 1998-IL504          19981018
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W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

IL 122084	A	19990922	IL 1997-122084		19971031
CA 2307886	A1	19990514	CA 1998-2307886		19981018
AU 9895587	A	19990524	AU 1998-95587		19981018
AU 758188	B2	20030320			
EP 1027029	A1	20000816	EP 1998-949227		19981018
R: AT, DE, FR, GB, IT, NL					
JP 2001521882	T	20011113	JP 2000-518642		19981018
US 6861060	B1	20050301	US 2000-557098		20000421
PRIORITY APPLN. INFO.:			IL 1997-122084	A	19971031
			WO 1998-IL504	W	19981018

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Improved personal care formulations containing amphiphilic phospholipid carriers for topical mucosal applications

AB Personal care and hygiene formulations for topical application to mucosal surfaces. These formulations include an amphiphilic lipid carrier in the form of a colloidal composition which can. . . . carrying a large amount of active agent for controlled and prolonged release thereof at the desired site, such as mucous membrane surfaces and surrounding tissue. Accordingly, the present invention provides a formulation for oral or topical application including an anti-microbial agent and a lipid. The agent is held by the carrier through a hydrophobic interaction and. . . controlled manner over a prolonged period of time. The lipid is also characterized by having a high adhesive capability towards mucous membrane surfaces. The lipid and the agent are preferably present in a ratio in a range of from about 1:10 to. . .

ST mouthwash chlorhexidine phospholipid carrier lecithin colloid; topical compn mucosa phospholipid carrier

IT Betaines
Monoglycerides
Pyridinium compounds
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(alkyl, surfactant; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Surfactants
(amphiphilic; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Surfactants
(anionic; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Steroids, biological studies
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiinflammatory; topical formulations for mucosal

applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Deodorants (personal)
(breath fresheners; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Tooth
(caries, treatment of; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Drug delivery systems
(carriers; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Surfactants
(cationic; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Essential oils
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(clove; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Gingiva
(disease, treatment of; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Lecithins
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(egg yolk; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Drug delivery systems
Drug delivery systems
(emulsions, topical; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Essential oils
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(eucalyptus; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Drugs
(gastrointestinal; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Drug delivery systems
(inhalants; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Essential oils
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(lavender; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Edible oils
Glycerides, biological studies
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lipid additive; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Anesthetics
(local; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Drug delivery systems
(nasal; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Surfactants
(nonionic, Brijes and Spans and Emulphors; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Anti-inflammatory agents
(nonsteroidal; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Drug delivery systems
(ophthalmic; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Hygiene
(oral; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Essential oils
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(peppermint; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Drug delivery systems
(rectal; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Lecithins
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(soya; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Phosphates, biological studies
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(surfactant; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

IT Quaternary ammonium compounds, biological studies
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tetraalkyl, surfactant; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)
IT Anti-inflammatory agents
Antibiotics
Antiviral agents
Disinfectants
Fungicides
Mouthwashes
Nutrients
(topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)
IT Essential oils
Phosphatidylcholines, biological studies
Phosphatidylglycerols
Phospholipids, biological studies
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)
IT Drug delivery systems
(topical; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)
IT Drug delivery systems
(vaginal; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)
IT Mouth
(xerostomia, treatment of; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)
IT 57-88-5D, Cholesterol, derivs. 110-27-0, Isopropylmyristate 122-32-7, Triolein
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lipid additive; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)
IT 151-21-3, Sodium lauryl sulfate, biological studies 9004-81-3, Polyethylene glycol laurate 9005-64-5, Tween-20 9005-65-6, Tween-80 12597-72-7, Triton (particle) 25301-02-4, Tyloxapol 25618-55-7, Polyglycerine 106392-12-5, Pluronic
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(surfactant; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)
IT 50-02-2 50-24-8, Prednisolone 50-78-2, Acetylsalicylic acid 55-56-1, Chlorhexidine 56-75-7, Chloramphenicol 56-95-1, Chlorhexidine diacetate 58-85-5, Biotin 60-54-8, Tetracycline 89-78-1, dl-Menthol 94-09-7, Benzocaine 114-07-8, Erythromycin 121-33-5, Vanillin

123-03-5, Cetylpyridinium chloride 137-58-6, Lidocaine 137-66-6, Ascorbyl palmitate 303-98-0, Coenzyme Q-10 426-13-1D, Fluorometholone, derivs. 541-15-1, Carnitine 616-68-2, Trimecaine 768-94-5, Amantadine 1400-61-9, Nystatin 1406-16-2, Vitamin D 1406-18-4, Vitamin E 2398-96-1, Tolnaftate 3380-34-5, Triclosan 5983-09-5 8044-71-1, Cetrimide 11103-57-4, Vitamin A 12001-79-5, Vitamin K 12633-72-6, Amphotericin 13410-30-5 15307-86-5, Diclofenac 22071-15-4, Ketoprofen 22916-47-8, Miconazole 57828-26-9, Lipoic acid 59277-89-3, Acyclovir 65277-42-1, Ketoconazole 86386-73-4, Fluconazole RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

L42 ANSWER 2 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2007:328386 USPATFULL
TITLE:	Lotioned wipe product to reduce adhesion of soils or exudates to the skin
INVENTOR(S):	Marsh, Randall Glenn, Hamilton, OH, UNITED STATES Sawin, Philip Andrew, Cincinnati, OH, UNITED STATES Watson, Randall Alan, Loveland, OH, UNITED STATES
PATENT ASSIGNEE(S):	The Procter & Gamble Company (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2007286894	A1	20071213
APPLICATION INFO.:	US 2007-807288	A1	20070525 (11)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2006-812828P	20060612 (60)
	US 2006-855426P	20061031 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION - WEST BLDG., WINTON HILL BUSINESS CENTER - BOX 412, 6250 CENTER HILL AVENUE, CINCINNATI, OH, 45224, US
NUMBER OF CLAIMS:	20
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	4 Drawing Page(s)
LINE COUNT:	1386

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Lotioned wipe product to reduce adhesion of soils or exudates to the skin

AB . . . may be incorporated into an aqueous medium to assist in the prevention of soils and bodily exudates adhering to the skin. A substrate may be utilized to assist in delivering the anti-stick agent to the skin.

DETD . . . used for delivering an improved body cleansing performance. The lotion may help reduce adhesion of soils or exudates to the skin .

DETD Cleaning the skin is a personal hygiene problem not always easily solved. Dry tissue products are the most commonly used cleansing products post-defecation, post-urination and during menstruation. Dry tissue products are also commonly used to remove

soils, such as food and dirt, from the skin. Dry tissue products, such as those commonly used, are generally referred to as "toilet paper," "toilet tissue," or "paper towels.". . .

DETD Both the perineal area and the vulvar area are marked by the presence of fine folds/wrinkles (sulci) and hair follicles, both of which make these regions more difficult anatomical areas to cleanse. During defecation, fecal matter is excreted through. . . to accumulate in hard to reach locations such as around the base of hairs and in the sulci of the skin's surface. During menstruation, menses may accumulate on the skin and hair after the use of a sanitary napkin. As the fecal or menstrual matter dehydrates upon exposure to air or upon contact with an absorbent implement such as tissue paper, diaper, or sanitary napkin, it adheres more tenaciously to the skin and hair. Subsequent removal of the remaining dehydrated exudates may be even more difficult and may result in inadequate cleansing. Among those. . .

DETD . . . the wipe, thereby reducing the abrasiveness of the cleansing operation;

The hydration of the residues, thus enhancing their removal from the skin or hair;

The hydration of the skin tissue; and

The ability to deliver a soothing or protective lotion to the skin that can remain on the skin after the cleansing operation.

DETD . . . that deliver the right balance between normally antagonistic concepts such as:

Enhancing the removal of soil while protecting the skin from irritation and abrasion.

The long lasting feeling of comfortable cleanliness while avoiding a greasy feeling on the skin.

DETD . . . wet wipe that cleans effectively but that also simultaneously reduces or prevents the adhesion of soils or exudates to the skin. Such a wipe would greatly facilitate cleansing. The facilitation of cleansing by such a wipe may be reflected by a reduced deposition of soils or exudates on the skin from subsequent insults. As a result, there may be a reduction in the amount of soils or exudates on the skin at the time of the next cleaning, easier removal of the soils or exudates from the skin resulting in less abrasive damage, reduced smearing of the soils or exudates on the skin, and/or improved capture/retention of the soils or exudates on a substrate, such as a wet wipe, or within an absorbent. . .

DETD . . . exists a further need for a wet wipe that substantially reduces or prevents adhesion of soils or exudates to the skin in a manner that is transparent to the individual using the wipe, i.e. does not require a change in habit such as the use of a separate wipe or leave an undesirable greasy layer on the skin surface.

DETD A method of preventing the adherence of soils or exudates to the skin may comprise a step of contacting the lotioned wipe product to the skin.

DETD The ease with which soils and bodily exudates are removed from the skin may be related to the strength of the adhesive interactions between the soils or exudates and the skin surface. A reduction in the adhesion of the soils or exudates to the skin may enable an easier removal of the soils or exudates. A variety of materials (hereinafter referred to as anti-stick agents) have been identified that may reduce the strength of adhesion of soils or exudates to the skin. A substrate in contact with a lotion comprising

an anti-stick agent may reduce the strength of adhesion of soils or exudates to the skin. Such a combination of a substrate and lotion may be a lotioned wipe product.

DETD . . . of "w/w" for residual artificial bowel movement (ABM) refers to the weight of the remaining artificial bowel movement on the skin versus the total weight of the artificial bowel movement applied to the skin.

DETD . . . instance where the lotion may comprise hydrophilic (i.e. water soluble) ingredients that ultimately are intended to be imparted to the skin during cleansing, it may be desirable that the fibers comprise hydrophobic materials to reduce the tendency of the hydrophilic ingredients to adhere to the fibers, thereby reducing their availability to the skin. Without being bound by theory, it is believed that the lotion ingredients may partition between the lotion and the fibers during storage, and between the lotion and the fibers and the skin during cleansing. In the instance where the lotion comprises a hydrophilic ingredient that is to be imparted to the skin during cleansing, the use of hydrophobic fibers in the substrate favors the partitioning, and subsequent delivery, of the hydrophilic ingredient to the skin.

DETD . . . ease of removal of the bodily exudates by improving the ability to grip or otherwise lift the exudates from the skin during cleansing. Any one of a number of texture elements may be useful in improving the ability to grip or otherwise lift the exudates from the skin during cleansing such as, but not limited to continuous hydro-molded elements, hollow molded element, solid molded elements, circles, squares, rectangles,. . .

DETD . . . desired, as described herein, to form a lotion composition. The lotion may form a film on the surface of the skin and may provide increased repellency of residual soils or exudates at a low level of anti-stick agent.

DETD . . . by theory, it is believed that anti-stick agents may reduce the adhesive force between the soils or exudates and the skin surface such that the adhesive forces may be smaller than the cohesive forces within the soils or exudates, thereby allowing the soils or exudates to detach from the skin surface upon application of a shear force such as that generated by wiping. It is not intended that this mechanism describe the means by which all anti-stick agents described herein function. Other possible mechanisms of reducing adhesion to skin will be obvious to those skilled in the art.

DETD The use of non-water soluble materials to reduce adhesion of soils or exudates to skin is known in the art. Materials such as silicones, mineral oil, petrolatum, plant-derived oils, and other hydrophobic emollients are known. . .

DETD . . . performance, they suffer from several major setbacks including:

they often leave an undesirable greasy or slippery feel on the skin, and

they are typically lubricious, reducing interaction of the cleansing implement and the soils or exudates, resulting in smearing and poor. . .

DETD . . . Water soluble anti-stick agents may have the following advantages:

they typically do not leave a greasy feeling on the skin, and

they are typically not as lubricous as non-water soluble anti-stick agents and may result in better cleaning and less smearing.

DETD . . . a cleansing benefit such as the repellency of soils or exudates

and may result in no sensory negatives on the skin such as a greasy or slippery film. Consumers may prefer a substrate that can deliver an anti-stick benefit while being. . .

DETD A method for assessing the adhesion of soils or exudates to the skin surface has been detailed herein. It has been discovered that some anti-stick agents, used at a low level (e.g., in a lotion), may provide an anti-stick benefit on skin, but the magnitude of this anti-stick benefit is greatly reduced on artificial surfaces. Without being bound by theory, it is believed that factors such as the wettability, surface energy, and surface chemistry of skin are critical for the formation of effective anti-stick films containing certain water soluble anti-stick agents.

DETD The test for assessing the adhesion of soils or exudates to the skin is described in detail in the TEST METHODS section. Briefly, the Anti-Stick Screening Method treats the skin surface with a defined amount of anti-stick agent or a lotion comprising the anti-stick agent. A defined amount of an. . . away slowly with forceps. The paper is tared before application of the ABM and is re-weighed after removal from the skin. The percent residual ABM on the skin is calculated as the weight of the artificial bowel movement (ABM) remaining on the skin versus the weight of the artificial bowel movement originally applied to the skin . The ABM, similar to real infant BM, fails cohesively, resulting in part of the ABM remaining on the skin surface and part of the ABM remaining on the piece of paper. The more efficient the anti-stick agent or lotion comprising the anti-stick agent, the less residual ABM on the skin surface. While artificial ABM is utilized in the Anti-Stick Screening Method, the artificial ABM may correlate in physical properties to. . .

DETD . . . use may leave less than about 10%, 8%, 7%, 5%, 4%, 3% or 2% residual soils or exudates on the skin surface as assessed by the Anti-Stick Screening Method. Skin that is not treated with an anti-stick agent, either alone or within a lotion, but is otherwise subjected to the above method may serve as a negative control. Typically, no treatment of the skin results in about 30-35% residual soils or exudates remaining on the skin surface.

DETD . . . lotion comprising an anti-stick agent may be effective at leaving less than about 10% residual soils or exudates on the skin as measured by the Anti-Stick Screening Method as described herein. Such a lotion may leave less than about 2%, 3%, 4%, 5%, 7%, 8% or 10% residual soils or exudates remaining on the skin. The anti-stick agent may be present in a lotion at a level of about 1% w/w wherein the lotion may leave less than about 10% residual soils or exudates on the skin. In another embodiment, the anti-stick agent may be present in a lotion at a level of about 2% w/w and may leave less than about 5% or 10% residual soils or exudates on the skin. The lotion comprising the anti-stick agent, as described herein, may be in contact with a substrate to form a lotioned. . . effective at leaving less than about 10%, 8%, 7%, 5%, 4%, 3%, or 2% residual soils or exudates on the skin.

DETD . . . glycerol at a level of about 50% w/w may leave less than about 10% residual soils or exudates on the skin.

DETD . . . 25% to about 50% w/w may leave less than about 5%, 3% or 2% residual soils or exudates on the skin.

DETD . . . or 9% w/w may leave less than about 10%, 7%, 5%, 3%, or 2% residual soils or exudates on the skin.

DETD . . . about 7% or 8% w/w may leave less than about 5%, 4% or 3%

residual soils or exudates on the skin.

DETD . . . about 4% w/w may leave less than about 10%, 7%, 5%, 4% or 3% residual soils or exudates on the skin. In another embodiment, a lotion comprising a PPG425 phosphate ester, such as DV8094, which is available from Rhodia Inc. of. . . to about 4% w/w may leave less than about 8%, 5%, 4%, or 3% residual soils or exudates on the skin. In yet another embodiment, a lotion comprising a PPG425/PEG400 phosphate ester, such as DV8097, which is available from Rhodia Inc.. . . about 4% w/w may leave less than about 10%, 8%, 6%, 4%, or 3% residual soils or exudates on the skin.

DETD Emollients may (1) improve the glide of the substrate on the skin, by enhancing the lubrication and thus decreasing the abrasion of the skin, (2) hydrate the residues (for example, fecal residues or dried urine residues or menses), thus enhancing their removal from the skin, (3) hydrate the skin, thus reducing its dryness and irritation while improving its flexibility under the wiping movement, and (4) protect the skin from later irritation (for example, caused by the friction of an absorbent article) as the emollient is deposited onto the skin and remains at its surface as a thin protective layer.

DETD . . . are desirable as this may reduce the tendency of the emollients to form a greasy or oily layer on the skin, which may not be consumer preferred.

DETD . . . that the surfactants provide sufficient cleansing or detersive benefits but do not overly dry or otherwise harm or damage the skin.

DETD Suitable amphoteric or zwitterionic surfactants for use in the compositions herein include those which are known for use in hair care or other personal care cleansing. Amphoteric surfactants suitable for use in the present compositions are well known in the. . .

DETD . . . (1) help to stabilize the lotion composition on a substrate, (2) enhance the transfer of the lotion composition to the skin , and (3) enhance the uniformity of the layer of the lotion composition on the skin.

DETD . . . the shear that is applied to the lotion composition. The application of the lotion composition to a surface (e.g. the skin) typically includes a "wiping" or "rubbing" movement. This movement may increase the shear and pressure experienced by the lotion composition.. . . of the lotion may decrease with the increased shear of "wiping" or "rubbing" thereby enabling a better transfer to the skin as well as a better lubrication effect.

DETD . . . substrates (opened or not opened) as well as creating an environment with reduced growth of microorganisms when transferred to the skin during the wiping process.

DETD The spectrum of activity of the preservative may include bacteria, molds and yeast. Each of such microorganisms may be killed by the preservative. Another mode of action to be contemplated. . .

DETD . . . but not limited to perfumes and fragrances, texturizers, colorants, soothing agents and medically active ingredients, such as healing actives and skin protectants.

DETD This method may be used for assessing the adhesion of soils or exudates to the skin by quantifying the percentage of residual artificial pasty bowel movement ("ABM") left on the skin surface after treatment. The ABM, similar to real infant BM, fails cohesively, resulting in part of the ABM remaining on the skin

surface and part of the ABM being removed. The more efficient the anti-stick agent or lotion comprising the anti-stick agent, the lower the percentage of residual ABM on the skin surface.

DETD . . . as distributed by The Procter and Gamble Company, Cincinnati, Ohio, to wash their forearms. Panelists must refrain from using any topical product, such as ointments, creams or lotions, on their forearms during this washout-out period and also on the day of. . . the day of testing, panelist's arms are inspected to ensure they are free of cuts, scratches, and rashes. If any skin abnormalities are present, the panelist cannot participate.

DETD . . . placing the finger cot on top of the agent or lotion droplet and lightly rubbing the finger cot over the skin surface using several side-to-side and up-and-down movements for a total elapsed time of 10-15 seconds. Examining the site from an. . .

DETD . . . with ABM is held over the center of the test site on the forearm, in reasonably close proximity to the skin surface, and approximately 0.2 ml of ABM is dispensed onto the skin by pressing the plunger and by watching the gradations on the syringe. The ABM should form a reasonably uniform, compact. . .

DETD . . . weigh paper. For the no-treatment control, application of agent or lotion is skipped and ABM is applied directly to the skin site.

DETD . . . ((ABM Applied - ABM Removed)/ABM Applied) + 100. This is a measure of the percent (%) residual ABM on the skin surface after treatment.

CLM What is claimed is:
20. A method of preventing the adherence of soils or exudates to the skin comprising a step of contacting said skin with said wipe product of claim 1.

IT 50-70-4, Sorbitol, biological studies 50-99-7, D-Glucose, biological studies 56-81-5, Glycerol, biological studies 57-50-1, Sucrose, biological studies 57-55-6, Propylene glycol, biological studies 69-79-4, Maltose 87-99-0, Xylitol 107-21-1, Ethylene glycol, biological studies 115-77-5, Pentaerythritol, biological studies 463-79-6D, Carbonic acid, esters 585-88-6, Maltitol 1109-28-0, Maltotriose 7664-38-2D, Phosphoric acid, esters 7664-93-9D, Sulfuric acid, esters 7782-99-2D, Sulfurous acid, esters 9050-36-6, Maltodextrin 10043-35-3D, Boric acid (H3BO3), esters 11138-66-2, Xanthan gum 13718-94-0, Isomaltulose 25190-06-1, Polybutylene glycol 25265-75-2, Butylene glycol 25322-68-3, Polyethylene glycol 25322-69-4, Polypropylene glycol 25618-55-7, Polyglycerol 34620-76-3, Maltopentaose 34620-77-4, Maltohexaose 70161-44-3, Suttocide A 106392-12-5, Ethylene oxide-propylene oxide block copolymer 494837-94-4, Abil Care 85 627094-85-3, Euxyl PE 9010 959908-32-8, DV 7436 959908-50-0, Fibrella 3160
(lotioned wipe product comprising antistick agent to reduce adhesion of soils or exudates to the skin)

L42 ANSWER 3 OF 39 USPATFULL on STN
ACCESSION NUMBER: 2007:328385 USPATFULL
TITLE: Lotioned wipe product comprising an anti-stick agent and a performance enhancing agent
INVENTOR(S): Marsh, Randall Glenn, Hamilton, OH, UNITED STATES
Sawin, Philip Andrew, Cincinnati, OH, UNITED STATES
Watson, Randall Alan, Loveland, OH, UNITED STATES
Dannenberg, Andrea, Cincinnati, OH, UNITED STATES

10613723

PATENT ASSIGNEE(S): The Procter & Gamble Company (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2007286893	A1	20071213
APPLICATION INFO.:	US 2007-807139	A1	20070525 (11)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2006-812780P	20060612 (60)
	US 2006-855427P	20061031 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION - WEST BLDG., WINTON HILL BUSINESS CENTER - BOX 412, 6250 CENTER HILL AVENUE, CINCINNATI, OH, 45224, US
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 1251
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB . . . may be incorporated into an aqueous medium to assist in the prevention of soils and bodily exudates adhering to the skin. A substrate may be utilized to assist in delivering the anti-stick agent and the performance enhancing agent to the skin.

DETD . . . used for delivering an improved body cleansing performance. The lotion may help reduce adhesion of soils or exudates to the skin .

DETD Cleaning the skin is a personal hygiene problem not always easily solved. Dry tissue products are the most commonly used cleansing products post-defecation, post-urination and during menstruation. Dry tissue products are also commonly used to remove soils, such as food and dirt, from the skin. Dry tissue products, such as those commonly used, are generally referred to as "toilet paper," "toilet tissue," or "paper towels.". . .

DETD Both the perineal area and the vulvar area are marked by the presence of fine folds/wrinkles (sulci) and hair follicles, both of which make these regions more difficult anatomical areas to cleanse. During defecation, fecal matter is excreted through. . . to accumulate in hard to reach locations such as around the base of hairs and in the sulci of the skin's surface. During menstruation, menses may accumulate on the skin and hair after the use of a sanitary napkin. As the fecal or menstrual matter dehydrates upon exposure to air or upon contact with an absorbent implement such as tissue paper, diaper, or sanitary napkin, it adheres more tenaciously to the skin and hair. Subsequent removal of the remaining dehydrated exudates may be even more difficult and may result in inadequate cleansing. Among those. . .

DETD . . . the wipe, thereby reducing the abrasiveness of the cleansing operation;

The hydration of the residues, thus enhancing their removal from the skin or hair;

The hydration of the skin tissue; and

The ability to deliver a soothing or protective lotion to the skin that can remain on the skin after the cleansing operation.

DETD . . . that deliver the right balance between normally antagonistic

concepts such as:

Enhancing the removal of soil while protecting the skin from irritation and abrasion.

The long lasting feeling of comfortable cleanliness while avoiding a greasy feeling on the skin.

DETD . . . wet wipe that cleans effectively but that also simultaneously reduces or prevents the adhesion of soils or exudates to the skin. Such a wipe would greatly facilitate cleansing. The facilitation of cleansing by such a wipe may be reflected by a reduced deposition of soils or exudates on the skin from subsequent insults. As a result, there may be a reduction in the amount of soils or exudates on the skin at the time of the next cleaning, easier removal of the soils or exudates from the skin resulting in less abrasive damage, reduced smearing of the soils or exudates on the skin, and/or improved capture/retention of the soils or exudates on a substrate, such as a wet wipe, or within an absorbent. . .

DETD . . . exists a further need for a wet wipe that substantially reduces or prevents adhesion of soils or exudates to the skin in a manner that is transparent to the individual using the wipe, i.e. does not require a change in habit such as the use of a separate wipe or leave an undesirable greasy layer on the skin surface.

DETD A method of preventing the adherence of soils or exudates to the skin may comprise a step of contacting the lotioned wipe product to the skin.

DETD The ease with which soils and bodily exudates are removed from the skin may be related to the strength of the adhesive interactions between the soils or exudates and the skin surface. A reduction in the adhesion of the soils or exudates to the skin may enable an easier removal of the soils or exudates. A variety of materials (hereinafter referred to as anti-stick agents) have been identified that may reduce the strength of adhesion of soils or exudates to the skin. Additional materials (hereinafter referred to as "performance enhancing agents") have been identified that may improve the efficacy of the anti-stick. . . an anti-stick agent and a performance enhancing agent may reduce the strength of adhesion of soils or exudates to the skin. Such a combination of a substrate and lotion may be a lotioned wipe product.

DETD . . . of "w/w" for residual artificial bowel movement (ABM) refers to the weight of the remaining artificial bowel movement on the skin versus the total weight of the artificial bowel movement applied to the skin.

DETD . . . instance where the lotion may comprise hydrophilic (i.e. water soluble) ingredients that ultimately are intended to be imparted to the skin during cleansing, it may be desirable that the fibers comprise hydrophobic materials to reduce the tendency of the hydrophilic ingredients to adhere to the fibers, thereby reducing their availability to the skin. Without being bound by theory, it is believed that the lotion ingredients may partition between the lotion and the fibers during storage and between the lotion and the fibers and the skin during cleansing. In the instance where the lotion comprises a hydrophilic ingredient that is to be imparted to the skin during cleansing, the use of hydrophobic fibers in the substrate favors the partitioning, and subsequent delivery, of the hydrophilic ingredient to the skin.

DETD . . . ease of removal of the bodily exudates by improving the ability to grip or otherwise lift the exudates from the skin during

cleansing. Any one of a number of texture elements may be useful in improving the ability to grip or otherwise lift the exudates from the skin during cleansing such as, but not limited to continuous hydro-molded elements, hollow molded element, solid molded elements, circles, squares, rectangles,. . .

DETD . . . desired, as described herein, to form a lotion composition. The lotion may form a film on the surface of the skin and may provide increased repellency of residual soils or exudates at a low level of anti-stick agent.

DETD . . . that enhance the deposition, wettability, tenacity, uniformity, stability, or combinations thereof, of a film that may be formed on the skin surface after treatment with either an anti-stick agent alone or a lotion comprising an anti-stick agent.

DETD . . . It is surmised this may occur by enabling the anti-stick agent or the lotion to spread more easily over the skin surface to form a film, by enhancing the adherence of the anti-stick agent or lotion to the skin surface to render it more durable or resistant to wash-off or rub-off, by enabling the anti-stick agent or lotion to wet the skin surface more effectively, by enabling the film that is formed to be more uniform, by enabling the film that is. . .

DETD . . . may help to stabilize the lotion composition on a substrate, may enhance the transfer of the lotion composition to the skin surface, and may enhance the uniformity of the film of the lotion composition on the skin.

DETD . . . the shear that is applied to the lotion composition. The application of the lotion composition to a surface (e.g. the skin) typically includes a "wiping" or "rubbing" movement. This movement may increase the shear and pressure experienced by the lotion composition.. . . of the lotion may decrease with the increased shear of "wiping" or "rubbing" thereby enabling a better transfer to the skin as well as a better lubrication effect.

DETD . . . by theory, it is believed that anti-stick agents may reduce the adhesive force between the soils or exudates and the skin surface such that the adhesive forces may be smaller than the cohesive forces within the soils or exudates, thereby allowing the soils or exudates to detach from the skin surface upon application of a shear force such as that generated by wiping. It is not intended that this mechanism describe the means by which all anti-stick agents described herein function. Other possible mechanisms of reducing adhesion to skin will be obvious to those skilled in the art.

DETD The use of non-water soluble materials to reduce adhesion of soils or exudates to skin is known in the art. Materials such as silicones, mineral oil, petrolatum, plant-derived oils, and other hydrophobic emollients are known. . .

DETD . . . performance, they suffer from several major setbacks including:

they often leave an undesirable greasy or slippery feel on the skin, and

they are typically lubricious, reducing interaction of the cleansing implement and the soils or exudates, resulting in smearing and poor. . .

DETD . . . Water soluble anti-stick agents may have the following advantages:

they typically do not leave a greasy feeling on the skin, and

they are typically not as lubricous as non-water soluble anti-stick agents and may result in better cleaning and less smearing.

DETD . . . a cleansing benefit such as the repellency of soils or exudates and may result in no sensory negatives on the skin such as a greasy or slippery film. Consumers may prefer a substrate that can deliver an anti-stick benefit while being. . .

DETD A method for assessing the adhesion of soils or exudates to the skin surface has been detailed herein. It has been discovered that some anti-stick agents, used at a low level (e.g., in a lotion), may provide an anti-stick benefit on skin, but the magnitude of this anti-stick benefit is greatly reduced on artificial surfaces. Without being bound by theory, it is believed that factors such as the wettability, surface energy, and surface chemistry of skin are critical for the formation of effective anti-stick films containing certain water soluble anti-stick agents.

DETD The test for assessing the adhesion of soils or exudates to the skin is described in detail in the TEST METHODS section. Briefly, the Anti-Stick Screening Method treats the skin surface with a defined amount of anti-stick agent or a lotion comprising the anti-stick agent. A defined amount of an. . . away slowly with forceps. The paper is tared before application of the ABM and is re-weighed after removal from the skin. The percent residual ABM on the skin is calculated as the weight of the artificial bowel movement (ABM) remaining on the skin versus the weight of the artificial bowel movement originally applied to the skin . The ABM, similar to real infant BM, fails cohesively, resulting in part of the ABM remaining on the skin surface and part of the ABM remaining on the piece of paper. The more efficient the anti-stick agent or lotion comprising the anti-stick agent, the less residual ABM on the skin surface. While artificial ABM is utilized in the Anti-Stick Screening Method, the artificial ABM may correlate in physical properties to. . .

DETD . . . use may leave less than about 10%, 8%, 7%, 5%, 4%, 3% or 2% residual soils or exudates on the skin surface as assessed by the Anti-Stick Screening Method. Skin that is not treated with an anti-stick agent, either alone or within a lotion, but is otherwise subjected to the above method may serve as a negative control. Typically, no treatment of the skin results in about 30-35% residual soils or exudates remaining on the skin surface.

DETD . . . and a performance enhancing agent may be effective at leaving less than about 10% residual soils or exudates on the skin as measured by the Anti-Stick Screening Method as described herein. Such a lotion may leave less than about 2%, 3%, 4%, 5%, 7%, 8% or 10% residual soils or exudates remaining on the skin. A lotion composition comprising an anti-stick agent at a level of about 2% and a performance enhancing agent at a level of about 0.18% may leave less than about 10% residual soils or exudates on the skin. A lotion composition comprising an anti-stick agent at a level of about 2% and a performance enhancing agent at a level of about 0.18% may leave less than about 8% residual soils or exudates on the skin. A lotion composition comprising an anti-stick agent at a level of about 5% and a performance enhancing agent at a level of about 0.18% may leave less than about 4% residual soils or exudates on the skin. The lotion comprising the anti-stick agent and performance enhancing agent, as described herein, may be in contact with or associate. . . effective at leaving less than about 10%, 8%, 7%, 5%, 4%, 3%, or 2% residual soils or exudates on the skin. Water-soluble anti-stick agents include, but are not limited to:

Non-polymeric anti-stick agents such as glycerol and related polyols such. . .

DETD . . . agent at a level of about 0.18% w/w may leave less than about 9% residual soils or exudates on the skin. In another embodiment, a lotion comprising a Pluronic.TM., such as Pluronic.TM. F68, at a level of about 2% w/w and. . . agent at a level of about 0.18% w/w may leave less than about 10% residual soils or exudates on the skin. In yet another embodiment, a lotion comprising a Pluronic.TM., such as Pluronic.TM. F68, at a level of about 5% w/w. . . agent at a level of about 0.18% w/w may leave less than about 4% residual soils or exudates on the skin.

DETD . . . at a level of about 0.18% and may leave less than about 8% w/w residual soils or exudates on the skin.

DETD Emollients may (1) improve the glide of the substrate on the skin, by enhancing the lubrication and thus decreasing the abrasion of the skin, (2) hydrate the residues (for example, fecal residues or dried urine residues or menses), thus enhancing their removal from the skin, (3) hydrate the skin, thus reducing its dryness and irritation while improving its flexibility under the wiping movement, and (4) protect the skin from later irritation (for example, caused by the friction of an absorbent article) as the emollient is deposited onto the skin and remains at its surface as a thin protective layer.

DETD . . . are desirable as this may reduce the tendency of the emollients to form a greasy or oily layer on the skin, which may not be consumer preferred.

DETD . . . that the surfactants provide sufficient cleansing or detersive benefits but do not overly dry or otherwise harm or damage the skin.

DETD Suitable amphoteric or zwitterionic surfactants for use in the compositions herein include those which are known for use in hair care or other personal care cleansing. Amphoteric surfactants suitable for use in the present compositions are well known in the. . .

DETD . . . substrates (opened or not opened) as well as creating an environment with reduced growth of microorganisms when transferred to the skin during the wiping process.

DETD The spectrum of activity of the preservative may include bacteria, molds and yeast. Each of such microorganisms may be killed by the preservative. Another mode of action to be contemplated. . .

DETD . . . but not limited to perfumes and fragrances, texturizers, colorants, soothing agents and medically active ingredients, such as healing actives and skin protectants.

DETD This method may be used for assessing the adhesion of soils or exudates to the skin by quantifying the percentage of residual artificial pasty bowel movement ("ABM") left on the skin surface after treatment. The ABM, similar to real infant BM, fails cohesively, resulting in part of the ABM remaining on the skin surface and part of the ABM being removed. The more efficient the anti-stick agent or lotion comprising the anti-stick agent and the performance enhancing agent, the lower the percentage of residual ABM on the skin surface.

DETD . . . as distributed by The Procter and Gamble Company, Cincinnati, Ohio, to wash their forearms. Panelists must refrain from using any topical product, such as ointments, creams or lotions, on their forearms during this washout-out period and also on the day of. . .

the day of testing, panelist's arms are inspected to ensure they are free of cuts, scratches, and rashes. If any skin abnormalities are present, the panelist cannot participate.

DETD . . . placing the finger cot on top of the agent or lotion droplet and lightly rubbing the finger cot over the skin surface using several side-to-side and up-and-down movements for a total elapsed time of 10-15 seconds. Examining the site from an. . .

DETD . . . with ABM is held over the center of the test site on the forearm, in reasonably close proximity to the skin surface, and approximately 0.2 ml of ABM is dispensed onto the skin by pressing the plunger and by watching the gradations on the syringe. The ABM should form a reasonably uniform, compact. . .

DETD . . . weigh paper. For the no-treatment control, application of agent or lotion is skipped and ABM is applied directly to the skin site.

DETD . . . ((ABM Applied - ABM Removed)/ABM Applied) + 100. This is a measure of the percent (%) residual ABM on the skin surface after treatment.

CLM What is claimed is:

21. A method of preventing the adherence of soils or exudates to the skin comprising a step of contacting said skin with said wipe product of claim 1.

IT 50-70-4, Sorbitol, biological studies 50-99-7, D-Glucose, biological studies 56-81-5, Glycerol, biological studies 56-81-5D, Glycerol, trialkoxylated, disulfate 57-50-1, Sucrose, biological studies 57-55-6, Propylene glycol, biological studies 69-79-4, Maltose 87-99-0, Xylitol 107-21-1, Ethylene glycol, biological studies 115-77-5, Pentaerythritol, biological studies 585-88-6, Maltitol 1109-28-0, Maltotriose 7664-38-2D, Phosphoric acid, mono- and dialkyl esters 9050-36-6, Maltodextrin 11138-66-2, Xanthan gum 13718-94-0, Isomaltulose 25190-06-1, Polybutylene glycol 25265-75-2, Butylene glycol 25322-68-3, Polyethylene glycol 25322-69-4, Polypropylene glycol 25618-55-7, Polyglycerol 31800-90-5, Trilaureth-4 phosphate 34620-76-3, Maltopentaose 34620-77-4, Maltohexaose 70161-44-3, Suttocide A 106392-12-5, Ethylene oxide-propylene oxide block copolymer 494837-94-4, Abil Care 85 627094-85-3, Euxyl PE9010 691397-13-4, Pluronic F68
(lotioned wipe product comprising antistick agent and performance enhancing agent)

L42 ANSWER 4 OF 39 USPATFULL on STN

ACCESSION NUMBER: 2007:265618 USPATFULL

TITLE: Gelled Periodontal Anesthetic Preparation

INVENTOR(S): Hirsh, Mark, Wellesley, MA, UNITED STATES
Hirsh, Jane C., Wellesley, MA, UNITED STATES
Trumbore, Mark W., Westford, MA, UNITED STATES

PATENT ASSIGNEE(S): Collegium Pharmaceutical, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2007232695	A1	20071004
APPLICATION INFO.:	US 2006-534552	A1	20060922 (11)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2005-46608, filed on 28 Jan 2005, PENDING

	NUMBER	DATE

PRIORITY INFORMATION:	US 2004-539677P	20040128 (60)
	US 2005-720153P	20050923 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	PATREA L. PABST, PABST PATENT GROUP LLP, 400 COLONY SQUARE, SUITE 1200, 1201 PEACHTREE STREET, ATLANTA, GA, 30361, US	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
LINE COUNT:	684	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A composition for anesthetizing oral or buccal tissues, especially periodontal pockets, is provided. The composition has a high concentration of topical anesthetic carried in a non-aqueous liquid vehicle containing a gelling agent. The anesthetics are optionally stabilized in the solution by. . .

SUMM Periodontitis is a disease caused by bacterial agents, frequently in combination with poor oral hygiene. Periodontal disease is caused mainly by the accumulation of bacteria (plaque). The destructive toxins and enzymes produced by these bacteria cause the ligaments holding the tooth in its socket to break down. As the ligaments degrade, the gingivae pull away from the tooth, resulting in a periodontal pocket between the tooth and gingivae. In these persistently infected pockets, bacteria lay down deposits and form biofilms, known as bacterial plaque. Plaque collects in these pockets, causing them to deepen. As plaque builds up and the pockets deepen, damage to. . .

DETD . . . a "carrier"), from any source, including animal, vegetable, mineral and synthetic. NINA vehicles are selected to be compatible with the skin for topical administration, and compatible with the gastrointestinal tract for oral administration.

DETD For both oral and topical administration, the rate of release of the active agent can be controlled by controlling the water compatibility of the NINA vehicle. For example, a vehicle containing polyethylene glycol or propylene glycol will quickly being carrying water from the skin and the atmosphere to the active agent-loaded carriers, while a vehicle of isooctane will tend to prevent water access to. . .

DETD . . . exchanging with appropriately charged ions within the gastrointestinal tract. Active agents applied topically are released by fluids present on the skin, such as sweat, atmospheric moisture, or wound exudate, which either contain ions, or can liberate ions, when required, for release of the active agent from the carrier, from the skin or from separate ionic depots within the NINA vehicle.

DETD . . . particle with no coating. Such a particle can be used for active agent delivery with no additional treatment, especially in topical formulations. However, the loaded particles will typically be coated with one or more layers of materials to control the rate. . .

DETD . . . method for inducing a gel state is to use a mixed solvent for a polymer, so that when the more fungible component evaporates or otherwise leaves the implant volume, or is replaced by water, the polymeric material gels. U.S. Pat. No.. . .

DETD Nonaqueous Benzocaine Formulation Suitable for Use as a Topical Anesthetic.

DETD Nonaqueous Tetracaine Formulation Suitable for Use as a Topical Anesthetic

IT 9000-11-7, Cm cellulose 9002-89-5, Polyvinyl alcohol 9003-01-4, Polyacrylic acid 9003-39-8, Povidone 9004-34-6D, Cellulose, alkyl derivs. 9004-53-9, Dextrin 9004-54-0, Dextran, biological studies 9011-14-7, Pmma 11138-66-2, Xanthan gum 25322-68-3, Peg 54182-62-6, Polacrilin 74811-65-7, Croscarmellose sodium 106392-12-5, Poloxamer
(gelled periodontal anesthetic formulations)

L42 ANSWER 5 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2007:121593 USPATFULL
TITLE:	Codon-optimized polynucleotide-based vaccines against Bacillus anthracis infection
INVENTOR(S):	Hermanson, Gary G., Encinitas, CA, UNITED STATES
PATENT ASSIGNEE(S):	Vical Incorporated (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20070105799	A1	20070510
APPLICATION INFO.:	US 2003-658688	A1	20030910 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-419089P	20021018 (60)
	US 2002-409307P	20020910 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 NEW YORK AVENUE, N.W., WASHINGTON, DC, 20005, US
NUMBER OF CLAIMS:	79
EXEMPLARY CLAIM:	1-214
NUMBER OF DRAWINGS:	41 Drawing Page(s)
LINE COUNT:	7259

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . component is the PA antigen adsorbed onto aluminum hydroxide. The production process is complex and the precise composition of the bacterial cell supernatant is not well characterized. Consequently, there is a significant lot-to-lot variation. In addition, the approved vaccination regimen is. . .

SUMM . . . subsequently a different vaccine composition, for example a recombinant viral vaccine, a protein subunit vaccine, or a recombinant or killed bacterial vaccine or vaccines to boost the anti-Bacillus anthracis toxin immune response in the vertebrate.

DETD . . . made up of genetic material (i.e., nucleic acids). Typically a plasmid contains an origin of replication which is functional in bacterial host cells, e.g., Escherichia coli, and selectable markers for detecting bacterial host cells comprising the plasmid. Plasmids of the present invention may include genetic elements as described herein arranged such that. . .

DETD . . . allowed to anneal together via the cohesive single stranded ends, and then they ligated together and cloned into a standard bacterial cloning vector, for example, a TOPO® vector available from Invitrogen Corporation, Carlsbad, Calif. The construct is then sequenced by standard. . . appropriate restriction enzymes and ligated together to form the final construct. The final construct is then cloned into a standard bacterial cloning vector, and

sequenced. Additional methods would be immediately apparent to the skilled artisan. In addition, gene synthesis is readily. . .

DETD Sterile immunity is defined herein as the ability to completely inhibit the germination of anthrax spores into bacteria. If germination occurs, the bacteria produce Letx and surviving rabbits immunized against the PA antigen would be expected to generate a response to LF. Likewise,. . .

DETD . . . may affect the outcome of an infection by anthrax. Among these potential activities is the effect of preventing germination of bacteria from the spores. (Welkos, S. et al. Microbiology. 147: 1677-85 (2001)). DNA vaccination may induce levels of antibody consistent with. . .

DETD . . . compositions of the present invention may be administered to any tissue of a vertebrate, including, but not limited to, muscle, skin, brain tissue, lung tissue, liver tissue, spleen tissue, bone marrow tissue, thymus tissue, heart tissue, e.g., myocardium, endocardium, and pericardium,. . .

DETD . . . not limited to intradermal (e.g., into the dermis or epidermis), transdermal (e.g., percutaneous) and transmucosal administration (i.e., into or through skin or mucosal tissue). Intracavity administration includes, but not limited to administration into oral, vaginal, rectal, nasal, peritoneal, or intestinal cavities. . .

DETD . . . commercially available depot materials (e.g., hydrogels), osmotic pumps (e.g., Alza minipumps), oral or suppositorial solid (tablet or pill) pharmaceutical formulations, topical skin creams, and decanting, use of polynucleotide coated suture (Qin, Y., et al., Life Sciences 65, 2193-2203 (1999)) or topical applications during surgery. Certain modes of administration are intramuscular needle-based injection and pulmonary application via catheter infusion. Each of the. . .

DETD . . . the priming immunization, the booster immunization, or both. Suitable adjuvants include, but are not limited to, cytokines and growth factors; bacterial components (e.g., endotoxins, in particular superantigens, exotoxins and cell wall components); aluminum-based salts; calcium-based salts; silica; polynucleotides; toxoids; serum proteins,. . .

DETD . . . 764 amino acid (aa) precursor protein (SEQ ID NO:4) that is processed by a signal peptidase upon secretion by the bacteria , and also by host serum proteases (reviewed in Mesnage S., and Fouet, A. J. Bacteriol. 184:331-334 (2002), which is incorporated by reference herein in its entirety). The first 29 amino acids of PA encodes a bacterial signal sequence that is cleaved during secretion from the bacteria. In the host, furin-like serum proteases cleave off the N-terminal 258 amino acids to yield PA63, the active form of. . .

DETD . . . appropriate restriction enzymes and ligated together to form the final construct. The final construct is then cloned into a standard bacterial cloning vector, and sequenced.

DETD . . . appropriate restriction enzymes and ligated together to form the final construct. The final construct is then cloned into a standard bacterial cloning vector, and sequenced.

DETD This construct encodes full length LF (minus the bacterial signal sequence) with three point mutations that render LF non-toxic. Each of these mutations, alone or together, are thought to. . .

DETD . . . motifs in full-length mature PA (PA83) and ten N-linked glycosylation motifs in PA63. Since this glycosylation does not occur in

bacteria, the anthrax antigens synthesized in mammalian cells after DNA immunization may differ from the PA and LF in anthrax toxin. . .

DETD . . . the Battelle Medical Research Evaluation Facility (MREF) in West Jefferson, Ohio) by standard methods. See, e.g., Henderson, D W J. Hygiene 50:53-68 (1952)). The Battelle facility has the equipment, staff, and certification to safely conduct a aerosol challenge of large mammals. . .

DETD . . . 1 ml/animal. The rabbits in Group D were vaccinated using a Biojector, as follows. Animals were anesthetized using ketamine/xylazine. The skin over the injection site was shaved, and the dose volume administered was 500 μl/muscle, 1 ml/animal. The vaccination groups were. . .

DETD . . . were challenged by aerosol administration of B. anthracis (Ames strain) spores by standard methods. See, e.g., Henderson, D W J. Hygiene 50:53-68 (1952)). Challenge doses ranged from about 50 LD50 equivalents to about 250 LD50 equivalents as noted in Table 17. . .

IT 998-07-2, DMPE 4004-05-1, DOPE 24863-90-9, 6,6'-Dicorynomycoloyl trehalose 106392-12-5 201036-16-0, DPyPE 299207-54-8, GAP-DMORIE
(as adjuvant in anthrax vector vaccine; codon-optimized synthetic genes for antigens of Bacillus anthracis for use in vector vaccines against anthrax)

L42 ANSWER 6 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2007:82360 USPATFULL		
TITLE:	Treatment of mucositis using N-acetylcysteine		
INVENTOR(S):	Rosenthal, Gary J., Louisville, CO, UNITED STATES Etter, Jeffrey B., Boulder, CO, UNITED STATES Rodell, Timothy C., Aspen, CO, UNITED STATES Schauer, Wren H., Boulder, CO, UNITED STATES Samaniego, Adrian, Louisville, CO, UNITED STATES		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2007071824	A1	20070329
APPLICATION INFO.:	US 2006-540357	A1	20060929 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2003-728277, filed on 4 Dec 2003, PENDING Continuation of Ser. No. US 2001-993383, filed on 21 Nov 2001, GRANTED, Pat. No. US 6685917 Continuation-in-part of Ser. No. US 2000-721516, filed on 22 Nov 2000, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MARSH, FISCHMANN & BREYFOGLE LLP, 3151 SOUTH VAUGHN WAY, SUITE 411, AURORA, CO, 80014, US		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	1223		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM Mucositis is a serious and often very painful disorder involving inflammation of the mucous membrane, with the inflammation often accompanied by infection and/or ulceration. Mucositis can occur at any of the different mucosal sites in. . .

SUMM . . . the epithelial phase, is signaled by atrophy and ulceration of

the mucosal epithelium. The third phase is defined as the ulcerative/ bacterial phase represented by ulcerative lesions that are prone to bacterial infection further compromising the patients' immune system. These painful lesions often limit a patient's ability to eat and drink and. . . radiation treatments. The last phase, the healing phase, is characterized by a proliferation and differentiation of epithelium as well as bacterial control.

SUMM Routine oral hygiene is extremely important in reducing the incidence and severity of mucositis. Oral hygiene methods include rinsing/irrigation and mechanical plaque removal. Although not entirely supported by controlled clinical trials, allopurinol mouthwash and vitamin E have been cited as agents that may decrease the severity of mucositis. Prophylaxis against fungal infections is commonly employed in an effort to treat oral mucositis and includes use of topical antifungal agents such as nystatin-containing mouthwashes and clotrimazole troches. Although topical antifungal prophylaxis and treatment may clear superficial oropharyngeal infections, topical agents tend not to be well absorbed and have not been demonstrated to be effective against more deeply invasive fungal infections, which typically involve the esophagus and lower gastrointestinal tract. For this reason, systemic agents are indicated for treating all except superficial fungal infections in the oral cavity.

SUMM Chlorhexidine is a broad spectrum antimicrobial with activity against gram-positive and gram-negative organisms, yeast, and other fungal organisms. It also has the desirable properties of sustained binding to oral surfaces and minimal gastrointestinal (GI) absorption, thereby limiting. . .

DETD . . . or prolonged and sustained action, of the oral mucositis therapeutic, thereby improving the efficacy of the oral mucositis therapeutic upon topical application to mucosal surfaces, a route that may otherwise be an ineffective means of therapy. Furthermore, the delivery system may. . .

DETD . . . be stable under the conditions of manufacture and storage and preferably preserved against the contaminating action of microorganisms such as bacteria and fungi. The carrier liquid can be a solvent of dispersion medium containing, for example, water, ethanol, polyol (e.g., glycerol, propylene glycol,. . .

IT 69-72-7D, derivs. 70-18-8, Glutathione, biological studies 77-92-9, Citric acid, biological studies 532-32-1, Sodium benzoate 541-15-1D, Carnitine, acyl derivs. 629-25-4, Sodium laurate 638-23-3 1002-62-6, Sodium caprate 1115-84-0, Methylmethionine sulfonium chloride 1984-06-1, Sodium caprylate 2508-76-1, Sodium glycyrrhetinate 7421-40-1, Glycyrrhetinic acid hydrogen succinate disodium salt 9004-34-6D, Cellulose, derivs. 9012-76-4, Chitosan 9012-76-4D, Chitosan, derivs. 19045-66-0D, Thiocarbamic acid, derivs. 68797-35-3, Dipotassium glycyrrhizinate 106392-12-5, Poloxamer (treatment of mucositis)

L42 ANSWER 7 OF 39 USPATFULL on STN
ACCESSION NUMBER: 2007:17148 USPATFULL
TITLE: Treatment of proctitis
INVENTOR(S): Rosenthal, Gary J., Louisville, CO, UNITED STATES
Etter, Jeffrey B., Boulder, CO, UNITED STATES
Rodell, Timothy C., Aspen, CO, UNITED STATES
Schauer, Wren H., Boulder, CO, UNITED STATES
Samaniego, Adrian, Louisville, CO, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2007014861	A1	20070118
APPLICATION INFO.:	US 2006-525983	A1	20060922 (11)

RELATED APPLN. INFO.: Division of Ser. No. US 2003-728277, filed on 4 Dec 2003, PENDING Continuation of Ser. No. US 2001-993383, filed on 21 Nov 2001, GRANTED, Pat. No. US 6685917 Continuation-in-part of Ser. No. US 2000-721516, filed on 22 Nov 2000, ABANDONED

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MARSH, FISCHMANN & BREYFOGLE LLP, 3151 SOUTH VAUGHN WAY, SUITE 411, AURORA, CO, 80014, US
NUMBER OF CLAIMS: 32
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Page(s)
LINE COUNT: 1287
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM Mucositis is a serious and often very painful disorder involving inflammation of the mucous membrane, with the inflammation often accompanied by infection and/or ulceration. Mucositis can occur at any of the different mucosal sites in. . .

SUMM . . . the epithelial phase, is signaled by atrophy and ulceration of the mucosal epithelium. The third phase is defined as the ulcerative/bacterial phase represented by ulcerative lesions that are prone to bacterial infection further compromising the patients' immune system. These painful lesions often limit a patient's ability to eat and drink and. . . radiation treatments. The last phase, the healing phase, is characterized by a proliferation and differentiation of epithelium as well as bacterial control.

SUMM Routine oral hygiene is extremely important in reducing the incidence and severity of mucositis. Oral hygiene methods include rinsing/irrigation and mechanical plaque removal. Although not entirely supported by controlled clinical trials, allopurinol mouthwash and vitamin E have been cited as agents that may decrease the severity of mucositis. Prophylaxis against fungal infections is commonly employed in an effort to treat oral mucositis and includes use of topical antifungal agents such as nystatin-containing mouthwashes and clotrimazole troches. Although topical antifungal prophylaxis and treatment may clear superficial oropharyngeal infections, topical agents tend not to be well absorbed and have not been demonstrated to be effective against more deeply invasive fungal infections, which typically involve the esophagus and lower gastrointestinal tract. For this reason, systemic agents are indicated for treating all except superficial fungal infections in the oral cavity.

SUMM Chlorhexidine is a broad spectrum antimicrobial with activity against gram-positive and gram-negative organisms, yeast, and other fungal organisms. It also has the desirable properties of sustained binding to oral surfaces and minimal gastrointestinal (GI) absorption, thereby limiting. . .

DETD . . . or prolonged and sustained action, of the oral mucositis therapeutic, thereby improving the efficacy of the oral mucositis therapeutic upon topical application to mucosal surfaces, a route that may otherwise be an ineffective means of therapy. Furthermore, the delivery system may. . .

DETD . . . be stable under the conditions of manufacture and storage and preferably preserved against the contaminating action of microorganisms such as bacteria and fungi. The carrier liquid can be a solvent of dispersion medium containing, for example, water, ethanol, polyol (e.g., glycerol, propylene glycol,. . .

IT 69-72-7D, derivs. 70-18-8, Glutathione, biological studies 77-92-9, Citric acid, biological studies 532-32-1, Sodium benzoate 541-15-1D, Carnitine, acyl derivs. 629-25-4, Sodium laurate 638-23-3 1002-62-6, Sodium caprate 1115-84-0, Methylmethionine sulfonium chloride 1984-06-1, Sodium caprylate 2508-76-1, Sodium glycyrrhetinate 7421-40-1, Glycyrrhetinic acid hydrogen succinate disodium salt 9004-34-6D, Cellulose, derivs. 9012-76-4, Chitosan 9012-76-4D, Chitosan, derivs. 19045-66-0D, Thiocarbamic acid, derivs. 68797-35-3, Dipotassium glycyrrhizinate 106392-12-5, Poloxamer (treatment of mucositis)

L42 ANSWER 8 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2007:17147 USPATFULL
TITLE:	Treatment of esophagitis
INVENTOR(S):	Rosenthal, Gary J., Louisville, CO, UNITED STATES Etter, Jeffrey B., Boulder, CO, UNITED STATES Rodell, Timothy C., Aspen, CO, UNITED STATES Schauer, Wren H., Boulder, CO, UNITED STATES Samaniego, Adrian, Louisville, CO, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2007014860	A1	20070118
APPLICATION INFO.:	US 2006-525752	A1	20060922 (11)

RELATED APPLN. INFO.:	Division of Ser. No. US 2003-728277, filed on 4 Dec 2003, PENDING Continuation of Ser. No. US 2001-993383, filed on 21 Nov 2001, GRANTED, Pat. No. US 6685917 Continuation-in-part of Ser. No. US 2000-721516, filed on 22 Nov 2000, ABANDONED
DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	MARSH, FISCHMANN & BREYFOGLE LLP, 3151 SOUTH VAUGHN WAY, SUITE 411, AURORA, CO, 80014, US
NUMBER OF CLAIMS:	33
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	1 Drawing Page(s)
LINE COUNT:	1293

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM Mucositis is a serious and often very painful disorder involving inflammation of the mucous membrane, with the inflammation often accompanied by infection and/or ulceration. Mucositis can occur at any of the different mucosal sites in. . .

SUMM . . . the epithelial phase, is signaled by atrophy and ulceration of the mucosal epithelium. The third phase is defined as the ulcerative/ bacterial phase represented by ulcerative lesions that are prone to bacterial infection further compromising the patients' immune system. These painful lesions often limit a patient's ability to eat and drink and. . . radiation treatments. The last phase, the healing phase, is characterized by a proliferation and differentiation of epithelium as well as bacterial control.

SUMM Routine oral hygiene is extremely important in reducing the incidence and severity of mucositis. Oral hygiene methods

include rinsing/irrigation and mechanical plaque removal. Although not entirely supported by controlled clinical trials, allopurinol mouthwash and vitamin E have been cited as agents that may decrease the severity of mucositis. Prophylaxis against fungal infections is commonly employed in an effort to treat oral mucositis and includes use of topical antifingal agents such as nystatin-containing mouthwashes and clotrimazole troches. Although topical antifungal prophylaxis and treatment may clear superficial oropharyngeal infections, topical agents tend not to be well absorbed and have not been demonstrated to be effective against more deeply invasive fungal infections, which typically involve the esophagus and lower gastrointestinal tract. For this reason, systemic agents are indicated for treating all except superficial fungal infections in the oral cavity.

SUMM Chlorhexidine is a broad spectrum antimicrobial with activity against gram-positive and gram-negative organisms, yeast, and other fungal organisms. It also has the desirable properties of sustained binding to oral surfaces and minimal gastrointestinal (GI) absorption, thereby limiting. . .

DETD . . . or prolonged and sustained action, of the oral mucositis therapeutic, thereby improving the efficacy of the oral mucositis therapeutic upon topical application to mucosal surfaces, a route that may otherwise be an ineffective means of therapy. Furthermore, the delivery system may. . .

DETD . . . be stable under the conditions of manufacture and storage and preferably preserved against the contaminating action of microorganisms such as bacteria and fungi. The carrier liquid can be a solvent of dispersion medium containing, for example, water, ethanol, polyol (e.g., glycerol, propylene glycol,. . .

IT 69-72-7D, derivs. 70-18-8, Glutathione, biological studies 77-92-9, Citric acid, biological studies 532-32-1, Sodium benzoate 541-15-1D, Carnitine, acyl derivs. 629-25-4, Sodium laurate 638-23-3 1002-62-6, Sodium caprate 1115-84-0, Methylmethionine sulfonium chloride 1984-06-1, Sodium caprylate 2508-76-1, Sodium glycyrrhetinate 7421-40-1, Glycyrrhetinic acid hydrogen succinate disodium salt 9004-34-6D, Cellulose, derivs. 9012-76-4, Chitosan 9012-76-4D, Chitosan, derivs. 19045-66-0D, Thiocarbamic acid, derivs. 68797-35-3, Dipotassium glycyrrhizinate 106392-12-5, Poloxamer
(treatment of mucositis)

L42 ANSWER 9 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2006:166419 USPATFULL			
TITLE:	Composition and wipe for reducing viscosity of viscoelastic bodily fluids			
INVENTOR(S):	Schroeder, Karyn C., Neenah, WI, UNITED STATES Krautkramer, Candace D., Neenah, WI, UNITED STATES Koenig, David W., Menasha, WI, UNITED STATES Hoffman, Douglas R., Oshkosh, WI, UNITED STATES Stahl, Katherine D., Appleton, WI, UNITED STATES			
PATENT ASSIGNEE(S):	Kimberly-Clark Worldwide, Inc. (U.S. corporation)			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2006140924	A1	20060629	
APPLICATION INFO.:	US 2004-25643	A1	20041228	(11)
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	APPLICATION			

LEGAL REPRESENTATIVE: KIMBERLY-CLARK WORLDWIDE, INC., 401 NORTH LAKE STREET, NEENAH, WI, 54956, US
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
LINE COUNT: 932
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a topical composition for application to the perianal and/or labial areas of the skin which helps prevent viscoelastic fluids, such as menses and feces, from attaching to the skin and aids in the reducing the viscoelastic properties of the fluid so that the fluid can flow into absorbent articles.. . . pads or pants, diapers and the like may also be used as a means to transfer the composition to the skin.

SUMM . . . and other non-menstrual fluids exit the vagina, they often wick along the body, causing the fluids to remain on the skin or on hair located in this region, causing the fluid to dry out and remain on the skin and/or hair. When absorbent articles are used to absorb and contain these fluids, often the fluids do not reach the absorbent article. . . to reach the absorbent article is often due to the viscoelastic properties of menses and menses preferred attraction to the skin. As a result of these fluids remaining on the skin, a number of undesirable situations may occur, including, transfer of the fluids to undergarments, staining of undergarments and unwanted odors.

SUMM . . . such absorbent materials and absorbent articles include, for example; personal care products, such as disposable diapers and training pants; feminine hygiene products, such as sanitary napkins and tampons; incontinent care products, such as pads and undergarments and the like. As is. . . to be absorbed by these articles sometimes do not reach the absorbent article, due to the fluids being deposited on skin and hair. In addition, highly viscous fluids are often difficult to absorb into absorbent articles. For example, in feminine hygiene products, the viscoelastic properties of menses often make it challenging to absorb and distribute within the feminine hygiene products. The viscosity and/or elastic components of such fluids tend to impose requirements for absorption and/or distribution within the absorbent. . .

SUMM . . . present in an absorbent article, leading to leakage or fluid remaining on the pad surface, which in turn leads to skin wetness.

SUMM Proper cleaning skin in the perianal and vaginal regions can be difficult due to the topography of the skin in that region and the presence of hair follicles. A common problem encountered by many individuals during cleaning of these areas after bowel movements or during menstruation is the occasional sticking of fecal material or the frequent occurrence of menses to the skin in the perianal and labial areas. Additionally, because fecal material generally contains bacteria and active enzymes, the presence of this material in the perianal region after bowel movement cleanup can also result in skin irritation, redness, and even inflammation and infection for sensitive individuals. Residual menstrual fluid can support the accumulation of organic material which can persist with subsequent cleanings. These residues contain bacteria, yeast, enzymes, odor inducing agents, and microbial growth promoters. These factors can alone or in combination cause skin irritation, itching sensations, infections, as well as personal discomfort.

SUMM Based on the foregoing, it is clear that maintaining clean and healthy

skin in the perianal, labial and surrounding areas is difficult, yet important. As such, products that can improve cleaning of the skin in these regions are highly desirable, as are products which can aid in transferring the viscoelastic fluids from the body to the absorbent articles to maintain clean skin in between product changes. It would also be desirable for the products to be flushable and of low cost.

SUMM Generally stated, the present invention provides a topical composition for the application to the perianal and/or labial areas of the skin which helps prevent viscoelastic fluids, such as menses and feces, from attaching to the skin and/or aids in reducing the viscoelastic properties of the fluid so that the fluid can flow directly to and into. . .

SUMM In another aspect of the present invention other components may be added to the composition, including a skin conditioning agent, a structuring agent and a rheology modifier which may aid in transferring the composition to the body. Typically, the skin conditioning agent is present in an amount from about 20% to about 90% by weight of the total composition; the. . .

DETD The present invention provides a topical viscoelastic fluid modifying composition for the topical application to skin in the perianal and/or labial areas of skin comprising at least one viscoelastant material and optionally at least one anti-adherent material.

DETD . . . polymers of glucose with chain-like structures and molecular weights up to, for example, 2,000,000 daltons produced from sucrose, often by bacterial action. An exemplary dextran is a 4000 MW dextran available from Polydex Pharmaceuticals, Ltd. Of Scarborough, Canada. Linked enzymes may. . .

DETD . . . linked enzyme is used, care should be taken so that the linked enzyme does not cause irritation to the sensitive skin in the labial and perianal regions of the body.

DETD The anti-adherent compound included in the topical composition described herein acts to prevent the adherence of menses and/or fecal material to the skin in the labial and perianal regions during and after menstruation or defecation, respectively. The presence of the anti-adherent compound in. . . a bowel movement. Without being bound to a particular theory, it is believed that the anti-adherent compound attaches to the skin through electrical and hydrophobic interaction with the skin and remains tightly bound thereto after deposit. When defecation occurs, bacteria and enzymes in the fecal material, which also typically attach to skin through electrical interactions, are not able to make the attachment to the skin as many of the binding sites are already occupied with anti-adherent compound. Because electrical and hydrophilic interaction with the bacteria and enzymes and the skin is reduced, much less fecal matter remains attached to the skin after defecation.

DETD The topical composition of the present invention typically contains from about 0.01% to about 25% by weight of the viscoelastant material and. . .

DETD . . . ingredients may also be added to the composition of the present invention to promote adhesion of the composition to the skin or aid in the transfer of the composition to the skin. The other ingredients include, for example, a skin conditioning agent, a structuring agent and a rheology modifier.

DETD A skin conditioning agent emollient is an active ingredient

in the topical composition of the present invention that typically softens, soothes, supples, coats, lubricates, cleans and/or moisturizes the skin. There are three types of skin conditioning agents. One type of skin conditioning agent, generally referred to as emollients, are particularly useful in improving the dry skin condition by restoring its moisture level as well as its softness, smoothness, pliability, and flexibility. A second type of skin conditioning agents, generally referred to as moisturizers or humectants, attract moisture from the surrounding atmosphere and enhance the water absorption of the stratum corneum (i.e., the outer, corny layer of the skin). A third type of skin conditioning agents, generally referred to as barrier protestants, which form an occlusive (i.e., non-water-permeable) layer on the skin surface that prevents or retards moisture losses from the deeper layers of the skin to the atmosphere. Exemplary skin conditioning agents useful in the present invention include, but are not limited to the following classes of compounds: petroleum-based emollients;. . .

DETD In one embodiment of the present invention, emollient type of skin conditioning agent are desired. Generally, emollients accomplish several of skin conditioning objectives simultaneously. Typically, emollients suitable for use in the composition described herein are fluids at room temperature such that. . .

DETD Generally, the skin conditioning agent is present in an amount from about 20% to about 90% by weight of the total composition. More typically, the composition contains from about 30% to about 85% by weight of the skin conditioning agent, and most typically from about 40% to about 80% by weight of the skin conditioning agent.

DETD The structuring agent utilized in the topical composition of the present invention helps to immobilize the skin conditioning agent and other components on the surface of a base substrate of a delivery vehicle, which may be used to deliver the topical composition to the skin. Because some skin conditioning agents, in particular the emollients, are fluids at room temperature, they may tend to flow or migrate away from. . .

DETD The rheology modifier utilized in the topical composition of the present invention increases the melt point viscosity of the formulation so that the formulation readily remains on. . . migrate into the interior of the base substrate, while substantially not affecting the transfer of the anti-adherent formulation to the skin. Additionally, the rheology modifier helps the topical composition to maintain a high viscosity at elevated temperatures, such as those encountered during storage and transportation. Exemplary rheology modifiers. . .

DETD The composition of the present invention may be applied to the target skin area by one of many different delivery vehicles. For example, the composition may be applied with a wipe, including mitts. . . pads or pants, diapers and the like may also be used as a means to transfer the composition to the skin. Whichever method is selected, it is desirable that the composition be administered in an acceptable fashion to the target skin area without leaving a messy aesthetically unpleasing residue on the skin. It is further desirable that the composition be administered without direct contact with the users' or applicators' hands, which could. . .

DETD . . . gel or absorbent articles described above, a mixture of anti-adherent compounds and viscoelastic modification compounds which will transfer to the skin. This combination of the viscoelastant and anti-adherent enhances the interaction of both menses and feces with the labial and perianal area skin, such that these fluids will not stick to the skin or hair in these areas, while providing a benefit of improved absorbency to the absorbent article. The improved performance is such that. . . . the absorbent core for sequestration and subsequent separation from the body. The anti-adherent is a compound which will coat the skin impeding the attachment or association of the soil with the skin . The ability of both the anti-adherent and feces/mucin modification agent to be delivered to the skin by a wipe substrate or other described vehicle above is realized by the use of divergent chemistries. For example, the. . . this composition to function by having the viscoelastant to partition to the top of the anti-adherent film formed on the skin by the anti-adherent. This interaction allows for the direct interaction of the viscoelastic fluid with the viscoelastant agent.

DETD In the present invention, topical skin treating composition may be applied to a delivery vehicle including wipes, films, sponges, cotton balls, tissues, toilet paper and the. . .

DETD . . . factors. If in the semi-solid or solid state, the composition should desirably soften, plasticize or become flowable at or near skin temperature, or when a slight pressure or shear force is applied to the composition. This will result in the composition readily transferring to the skin.

DETD . . . results in more formulation on the surface of the base substrate that can transfer to the user's labial and/or anal skin. Secondly, the higher the viscosity of the formulation at or above the melting point of the formulation, the less likely. . .

DETD The topical composition described above have a melt point viscosity of from about 5000 cPs to about 1,000,000 cPs, desirably from about. . .

DETD . . . directly to the wipes should be of a size such that the user cannot feel the encapsulated shell on the skin during use. Typically, the capsules have a diameter of no more than about 25 micrometers, and desirably no more than about 10 micrometers. At these sizes, there is no "gritty" or "scratchy" feeling on the skin when the wipe is utilized prior to defecation.

DETD . . . formulation such that, upon wiping across the labial or perianal region, an effective amount of formulation is transferred to the skin surface and hair located in these regions. Specifically, the wipe may suitably contain from about 1% (by weight of the base substrate) to. . .

DETD In addition to the components of the various topical composition described herein, each formulation may additionally comprise one or more optional components to impart additional benefits to the topical composition of the present invention. Suitable optional components include, for example, skin protectants, anti-oxidants, powders, antibiotics, anti-microbials, anti-inflammatories, fragrances, colorants, vitamin E, aloe extract, preservatives, odor control agents and the like. In. . .

CLM What is claimed is:

1. A topical viscoelastic fluid modifying composition for topical application to the skin and hair in the perianal and/or labial areas comprising at least one viscoelastant

material and an anti-adherent material.

6. The composition of claim 1, further comprising a skin condition agent, a rheology modifier, a structuring agent or a mixture thereof.

7. The composition of claim 6, wherein the skin conditioning agent comprises an emollient selected from the group consisting of petrolatum, mineral oil, mineral jelly, isoparaffins, vegetable oils, avocado. . .
9. The composition of claim 6, wherein the skin conditioning agent is present in an amount from about 20% to about 90% by weight of the total composition; the. . .
10. The composition of claim 9, wherein the skin conditioning agent is present in an amount from about 30% to about 85% by weight of the total composition; the. . .
21. A wet or dry wipe for topical application of at least one viscoelastant material to the skin in the perianal and/or labial areas comprising a base substrate and a composition comprising at least one viscoelastant material.

IT 56-81-5D, Glycerol, esters and derivs. 74-85-1D, Ethylene, polymers 100-42-5, Styrene, biological studies 115-11-7, Isobutene, biological studies 4602-84-0, Farnesol 6052-53-5, β-Benzalbutyric acid 9002-88-4, Polyethylene 9002-88-4D, Polyethylene, oxidized 9003-27-4, Polyisobutene 9003-55-8, Butadiene-styrene copolymer 9004-54-0, Dextran, biological studies 9004-61-9, Hyaluronic acid 9005-32-7, Alginic acid 9005-80-5, Inulin 9006-65-9, Dimethicone 9011-14-7, Polymethyl methacrylate 10578-34-4, Stearyl benzoate 12001-31-9, Disteardimonium hectorite 12691-60-0, Stearalkonium hectorite 24937-78-8 25038-32-8, Isoprene-styrene copolymer 25639-19-4, Ethylene-isobutylene copolymer 31692-79-2, Dimethiconol 36653-82-4D, Cetyl alcohol, esters 64612-25-5, Fucan 83271-10-7, Dextrin palmitate 92047-76-2, Tetrachlorodecaoxide 103403-38-9, Behenyl benzoate 105729-79-1D, Isoprene-styrene block copolymer, hydrogenated 106107-54-4D, Butadiene-styrene block copolymer, hydrogenated 106392-12-5, Poloxamer 407 130501-87-0, Stearalkonium bentonite 183387-52-2, Dextrin palmitate 2-ethylhexanoate 190524-47-1, Inulin stearate
(topical composition and wipe for reducing viscosity and preventing skin attachment of viscoelastic bodily fluids)

L42 ANSWER 10 OF 39 USPATFULL on STN
ACCESSION NUMBER: 2006:60260 USPATFULL
TITLE: Method of microencapsulation
INVENTOR(S): Kvitnitsky, Emma, Kiryat Shmona, ISRAEL
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PATENT ASSIGNEE(S): Tagra Biotechnologies Ltd., Netanya, ISRAEL (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006051425	A1	20060309
APPLICATION INFO.:	US 2005-208007	A1	20050822 (11)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2002-130529, filed on 30 Sep 2002, GRANTED, Pat. No. US 6932984 A 371 of International Ser. No. WO 2000-IL759, filed on 16 Nov 2000

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1999-27202	19991117

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BROWDY AND NEIMARK, P.L.L.C., 624 NINTH STREET, NW, SUITE 300, WASHINGTON, DC, 20001-5303, US
NUMBER OF CLAIMS: 80
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 2505
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides methods for microencapsulation of active ingredients for topical application, whereby single-layer and multi-layer, preferably double-layer, microcapsules, are obtained. The microcapsules protect the active ingredients, maintain their original activity throught processing, formulation and storage, and enable controlled release of the active ingredient only upon application onto the skin.

SUMM . . . relates to methods of microencapsulation of active ingredients such as agents having biological activity, odor agents and color agents for topical applications. The microcapsules obtained according to the provided methods are single-layer or multi-layer, preferably double-layer, microcapsules, that maintain the original. . .

SUMM It is an object of the present invention to provide methods for production of microcapsules for topical application, wherein the microcapsules consist of a core of an encapsulated substance and one or more outer polymeric shells.

SUMM It is another object of the present invention to provide microcapsules for topical application in which the encapsulated active ingredient in the inner core is stable throughout the preparation of the microcapsules, their. . .

SUMM It is another object of the present invention to provide microcapsules for topical application that are similar in size and shape and are homogeneously dispersed in all types of formulations.

SUMM It is a further object of the present invention to provide microcapsules for topical application with an optimal controlled release system that deliver a high content of the active ingredient only upon application onto the skin/scalp .

SUMM In one embodiment, the present invention provides a method for the production of single-layer microcapsules for topical application, wherein the microcapsules consist of a core made of an encapsulated active ingredient and an outer polymer-plasticizer shell, wherein. . .

SUMM In another embodiment, the present invention provides a method for the production of microcapsules for topical application, wherein the microcapsules consist of an inner core microcapsule which contains an active ingredient located within a wall-forming polymer. . .

SUMM . . . by the present invention are single-layer, double-layer and multi-layer microcapsules obtained by the methods of the invention and compositions for topical application for skin care,

skin supplement, hair care, sun care, baby care, oral hygiene and oral care, and pharmaceutical compositions for topical application comprising said microcapsules.

DETD The term "topical application" as used herein refers to external application to the skin, mucous membranes, teeth, hair, scalp. The term "compositions for topical application" includes compositions in any form such as ointment, paste, cream or lotion intended for skin care, skin supplement, sun care, baby care, hair care, oral hygiene (e.g., toothpaste, moutwash), pharmaceutical compositions for topical application, and similar compositions.

DETD In one aspect, the present invention relates toga method for the production of microcapsules for topical application, wherein the microcapsules consist of a core made of an encapsulated active ingredient and one or more shells of. . .

DETD . . . oils, natural extracts, essential oils, color agents such as pigments and colorants, odor agents such as fragrances, and pharmaceuticals for topical application such as antibiotics.

DETD The invention also provides single-layer microcapsules for oral hygiene having an outer polymer-plasticizer shell obtained by the method of the invention, wherein the wall-forming polymer is ethylcellulose and the. . .

DETD . . . on the chemical structure, molecular weight and physical properties of the microencapsulated active ingredient. For some active substances used in topical compositions, the known methods of single-layered microencapsulation do not provide an adequate protection from degradation and/or masking effects. For such. . .

DETD Thus, in another aspect, the present invention relates to a method for the production of multi-layer microcapsules for topical application consisting of an inner core microcapsule comprising an active substance within a wall-forming polymer shell, and one or more. . .

DETD Thus, in one embodiment, the present invention relates to a method for the production of multi-layer microcapsules for topical application, wherein the microcapsules consist of an inner core microcapsule which contains an active ingredient located within a wall-forming polymer. . .

DETD . . . may be controlled and tailored according to the intended use of the microcapsules, for example, preferably about 20-40 micron for topical application and 10-20 micron for dental application. Other factors responsible for the size of the formed droplets are the ratio. . .

DETD The residue of ethyl acetate and similar solvents in raw materials for topical/dental products should meet the relevant regulations (FDA, Colipa, CTFA, etc.). It is necessary to remove the trace amounts of the. . .

DETD . . . substance. This system enables a controlled release of the encapsulated agent only upon pressing and rubbing the microcapsule on the skin, scalp, teeth or gums.

DETD . . . activity may be selected from vitamins, natural extracts, individual compounds isolated from natural sources, essential oils, and pharmaceutical agents for topical applications.

DETD . . . form in the body. Retinol is an anti-oxidant vitamin used as nutritional factor and also as an active ingredient of topical /dental products. The activity of one IU (International Unit) of vitamin A.sub.1 (equivalent to a USP unit) is 0.3 μg of all-trans Retinol.

Retinol can be used for topical treatment of Ichthyosis vulgaris (an inherited skin disorder characterized by cornification of the skin) and common acne, and in anti-aging and rejuvenation formulations. However, Retinol (an unsaturated alcohol) is a small and unstable molecule. . . an active ingredient in compositions. In order to enjoy the beneficial effects of Retinol and meet the shelf-life needed for topical/dental compositions, this active principle should be protected from oxidation. Encapsulation of Retinol by the single- or double-layered encapsulation method of. . . effective solution for its stabilization and protection. The Retinol microcapsules of the invention are highly compatible with all types of topical/dental formulations and can be used in various applications including, without limiting, dental products, anti-aging products (creams, lotions, serums and masks), skin regeneration formulations, nourishing and moisturizing creams and anti-acne products.

DETD . . . an active ingredient of cosmetics. Due to its antioxidant properties, it is considered to confer both antioxidant and photoprotection to skin against free radical attack and UV ray damage. However, Vitamin C is easily oxidized and, upon storage, exposure to light,. . .

DETD . . . E in its ester form (e.g., tocopherol acetate) is only effective as antioxidant to the formulation, but not to the skin . To be effective as antioxidant to the skin, α-tocopherol has to be used, but it is inherently unstable. The microcapsules of the invention preferably contain stable 25±1% α-tocopherol, and can be used in various types of cosmetic formulations such as sunscreen products, shampoos, conditioners, hair gels, liquid make-up and make-up tissue remover, and release about 95-97% of Vitamin E directly onto the skin/ scalp upon application.

DETD In a further embodiment, the vitamin is vitamin F, a mixture of unsaturated fatty acids essential for skin health and functionality, also known as Essential Fatty Acids (EFA; linoleic acid and alpha-linolenic acid.). Vitamin F oxidizes rapidly when. . .

DETD . . . synthesis. Rutin is widely applied in dermatological and cosmetic products due to its beneficial effects on the appearance of healthy skin and is well known for its potent antioxidant and anti-inflammatory properties and ability to strengthen and modulate the permeability of. . . prevent its oxidation in cosmetic formulations, Rutin should be stabilized. The Rutin microcapsules of the present invention, developed specifically for topical application in order to stabilize the Rutin, preferably contain a high concentration (about 7%) of pure Rutin Hydrate from plant. . .

DETD . . . plant without undergoing any significant chemical change. This definition includes plant oils. Any herbal extract or plant oil used for topical application, for example in the cosmetic industry, can be used according to the invention, but preferred herbal extracts and plant. . .

DETD . . . to the flavonoid family and are potent antioxidants and free radical scavengers, reducing the harmful effects of UV radiation. In topical use, a great advantage of OPCs is a substantial increase in blood circulation at the sub-epitopical level and an improvement. . . (OPCs), however, are not stable and oxidize rapidly due to temperature and light influence or cross-reactions with other ingredients of topical formulation. The brown color developed in the final product is a result of OPCs oxidation. Encapsulation of GSE

according to. . . extract with other ingredients of the formulation, as well as guarantees the maximum release of OPCs from capsules on the skin upon application with maximum biological affect. The microcapsules of the present invention contain natural GSE rich in proanthocyanidins (min. 95%. . . formulation. They are thus indicated as an active ingredient for incorporation in anti-aging creams, in after-sun creams for reduction of skin erythema, in moisturizing and revitalizing products, and in facial sunscreens for prevention of UV-induced lipid oxidation in skin.

DETD . . . embodiment, the natural extract is Licorice root extract rich in Glabridin, a flavanoid known for its beneficial effects on the skin due to its anti-inflammatory and antioxidant properties. In addition, Glabridin has whitening/lightening and anti-spot properties, probably due to inhibition of. . . as a flavanoid, is sensitive to pH changes and this factor is the reason for extreme instability of Glabridin in topical formulations, resulting in loss of its original activity and in the development of a dark brown color in formulations. The. . . in all types of cosmetic formulations; and provide a unique control release of the extract only upon application onto the skin. The Licorice Extract microcapsules of the invention are, therefore, indicated as an active ingredient in whitening creams and lotions, age-defying. . .

DETD . . . shelf-life, maintain the GLA in its non-degraded active form, prevent development of distinct malodor during storage of the product, prevent skin irritation, and afford controlled release of high percentage of Borage oil directly to the skin. These microcapsules are indicated as an active ingredient for incorporation in moisturizing creams (especially for dry skin), anti-aging creams, repair formulations, hand creams, and lip-gloss and lip-protecting products.

DETD . . . shelf-life, maintain the GLA in its non-degraded active form, prevent development of distinct malodor during storage of the product, prevent skin irritation, and afford controlled release of high percentage of EPO directly to the skin. These microcapsules are indicated as an active ingredient for incorporation in moisturizing creams (especially for dry skin), anti-wrinkle formulations, repair formulations, hand creams, whitening products, lip-gloss and and lip-protecting products.

DETD . . . 25% encapsulated natural Hippophae oil with increased stability and are indicated for incorporation as an active ingredient in anti-aging products, skin treatment formulations, e.g. after peeling, shaving, burns, etc., sunscreen products, eye-zone formulations, and after-sun products.

DETD . . . oil has anti-inflammatory, antibacterial, antifungal, antiviral and antiparasitic properties. Tea Tree oil is beneficial in softening, regenerating and purifying the skin and scalp, in healing burns, disinfecting wounds and for treating spots and insect stings and bites. It is effective against fungal infections such as candidiasis, vaginal infections, fungal nail infections and for hemorrhoids. As a bath additive it may control bacteria in spas and pools. It is also known to reduce hypertrophic scarring and dandruff hair. Tea Tree Oil components include 1-terpinen-ol, responsible for most of the antimicrobial actions, 1,8-cineole, gamma terpinene, p-cymene and other terpenes.. . . not stable and oxidizes and loses its original activity when incorporated in cosmetic formulations in its naked form, may cause skin irritation and has a very strong original odor

due to its volatility. The microcapsules of the invention contain about 5%. . . . Oil's strong malodor in the formulation, and afford controlled release of high percentage of Tea Tree Oil directly to the skin/scalp. These microcapsules are indicated as an active ingredient for incorporation in facial care formulations for sensitive and delicate skin, personal hygiene products and shampoos for damaged and delicate hair, and anti-dandruff shampoos.

DETD In an additional embodiment of the invention, the active ingredient to be encapsulated is a pharmaceutical agent for topical applications, e.g. an antibiotic such as, but not limited to, a macrolide antibiotic selected from Erythromycin, Azithromycin or Clarithromycin. Clarithromycin is a semi-synthetic macrolide antibiotic used to treat certain infections caused by bacteria, such as pneumonia, bronchitis, and infections of the ears, lungs, sinuses, skin, and throat. It also is used to prevent disseminated Mycobacterium avium complex (MAC) infection in patients with human immunodeficiency virus (HIV). Clarithromycin is used orally, but expanding its use for topical application opens new possibilities for administration of this highly potent antibacterial agent with less tolerated drugs such as the tretinoins.. . . sensitive to degradation due to hydrolysis in water-containing formulations. The Clarithromycin microcapsules of the present invention are specifically developed for topical use and protect the antibiotic from degradation once used in water-containing formulations.

DETD Agents with odor properties are widely used in topical products. Typically, these agents such as fragrances, perfumes and other volatile materials suffer from instability under specific conditions such as. . .

DETD . . . formulations, its original strong characteristic odor and its potential cross-linking with other ingredients, are reasons that difficult its use in topical/dental products. The odorless Menthol microcapsules of the present invention contain about 10% Menthol. They protect the Menthol from oxidation and. . . preventing it from reacting with other ingredients in the formulation and providing a long lasting sensation/cooling effect upon application on skin . The microcapsules are homogeneously dispersed in cosmetic formulations without requiring the use of alcohol and are, therefore, indicated as an ingredient for oral hygiene care, e.g. toothpastes, mouth rinses, sun-screen products, cooling after-sun lotions, calming creams and refreshing pre- and after-shave products.

DETD . . . yellow iron oxides, or mixtures thereof. From these 3 oxides and the addition of Titanium dioxide, any shade of brown (skin tones) can be achieved.

DETD The present invention further provides multi-layer microcapsules for topical application, consisting of an inner core microcapsule which contains an active ingredient located within a wall-forming polymer, and one or. . .

DETD The present invention further provides double-layer microcapsules for topical application, consisting of an inner core microcapsule which contains an active ingredient located within a wall-forming polymer, and one outer. . .

DETD . . . The microcapsules are spherical in shape and are suitable, among many other applications, for cosmetic, dermatological, baby care and oral hygiene applications. The microcapsules can be effectively used in topical applications due to the unique ability of the capsules' walls to soften upon rubbing or pressing, e.g.

onto the skin or scalp, when used topically, thereby releasing 95-97% of the active ingredient onto the target area. The active ingredient remains stable during. . .

DETD The present invention further relates to composition for topical application comprising single-layer microcapsules obtained by the method of the invention, wherein the active ingredient is a macrolide antibiotic selected from the group consisting of Erythromycin, Clarithromycin and Azithromycin, or such compositions for oral hygiene.

DETD The present invention also relates to compositions for topical application comprising multi-layer, particularly double-layer, microcapsules obtained by the method of the invention

DETD In one embodiment, the invention provides compositions comprising said double-layer microcapsules for skin care, skin supplement, hair care, sun care, and baby care oral hygiene, and oral care.

DETD In another embodiment, the invention provides compositions comprising double-layer microcapsules for oral hygiene and oral care.

DETD In another embodiment, the invention provides compositions comprising double-layer microcapsules for topical application, wherein the active ingredient is a pharmaceutical.

DETD . . . affording controlled release of the oil only upon dermal application, and delivering high percentage of the oil directly to the skin.

DETD Encapsulation of Retinol Palmitate into single-layered microcapsules for oral hygiene application, was carried out according to the following procedure.

DETD Encapsulation of Tocopherol into single-layered microcapsules for oral hygiene application, was carried out according to the following procedure:

DETD Encapsulation of Sea Buckthorn Oil (Hippophae Rhamnoides) into single-layered microcapsules for oral hygiene application, was carried out according to the following procedure:

DETD Encapsulation of Tea Tree Oil (Melaleuca Alternifolia) into single-layered microcapsules for oral hygiene application, was carried out according to the following procedure:

CLM What is claimed is:

1. A method for the production of microcapsules for topical application, wherein the microcapsules consist of a core made of an encapsulated active ingredient and one or more shells of. . .

6. Single-layer microcapsules for oral hygiene having an outer polymer-plasticizer shell obtained by the method of claim 1, wherein the wall-forming polymer is ethylcellulose and the. . .

7. Single-layer microcapsules for oral hygiene according to claim 6, wherein the active ingredient is Retinol Palmitate, Tocopherol, Hippophae Oil or Tea Tree Oil.

8. A method according to claim 1 for the production of multi-layer microcapsules for topical application, wherein the microcapsules consist of an inner core microcapsule which contains an active ingredient located within a wall-forming polymer. . .

. . . from the group consisting of vitamins, natural extracts, individual compounds isolated from natural sources, essential oils, and pharmaceutical agents for topical application.

17. The method according to claim 10, wherein said pharmaceutical agent for topical application is an antibiotic.

. . . The method according to claim 8, wherein said organic solvent partially miscible with water is an organic solvent approved for topical applications.

38. Multi-layer microcapsules for topical application, consisting of an inner core microcapsule which contains an active ingredient located within a wall-forming polymer, and one or. . .
39. Multi-layer microcapsules for topical application, consisting of an inner core microcapsule which contains an active ingredient located within a wall-forming polymer, and one or. . .
42. Double-layer microcapsules for topical application, consisting of an inner core microcapsule which contains an active ingredient located within a wall-forming polymer, and one outer. . .
. . . from the group consisting of vitamins, natural extracts, individual compounds isolated from natural sources, essential oils, and pharmaceutical agents for topical application.

51. Double-layer microcapsules according to claim 44, wherein said pharmaceutical agent for topical application is an antibiotic.

74. Composition for topical application comprising single-layer microcapsules obtained by the method according to claim 1, wherein the active ingredient is a macrolide antibiotic. . .
75. Composition for oral hygiene comprising single-layer microcapsules according to claim 6.

76. Composition for topical application comprising multi-layer microcapsules according to claim 39.

77. Composition for topical application comprising double-layer microcapsules according to claim 42.

78. Composition comprising double-layer microcapsules according to claim 77 for skin care, skin supplement, hair care, sun care, and baby care oral hygiene, and oral care.

79. Composition comprising double-layer microcapsules according to claim 77 for oral hygiene and oral care.

80. Composition comprising double-layer microcapsules according to claim 77 for topical application, wherein the active ingredient is a pharmaceutical.

IT 50-81-7, Vitamin C, biological studies 59-02-9, α-Tocopherol 68-26-8, Retinol 77-89-4, Acetyltriethyl citrate 77-93-0, Triethyl citrate 79-10-7D, Acrylic acid, derivs., polymers 79-41-4D, Methacrylic acid, derivs., polymers 79-81-2, Retinol palmitate 89-78-1, Menthol 91-64-5, Coumarin 94-41-7, Chalcone 102-76-1, Triacetin 110-27-0, Isopropyl myristate 114-07-8, Erythromycin 128-37-0, Butylatedhydroxytoluene, biological studies 151-21-3, Sodium lauryl sulfate, biological studies 153-18-4, Rutin 538-23-8, Tricaprylin 538-24-9, Trilaurin 555-44-2, Tripalmitin 1308-38-9, Chromium oxide (Cr2O3), biological studies 1309-37-1, Red Iron Oxide, biological studies 1327-43-1, Aluminosilicic acid, magnesium salt 1327-44-2, Aluminosilicic acid, potassium salt 1332-37-2, Iron oxide, biological studies 1335-30-4, Aluminosilicic acid 1340-08-5, Vitamin

P 1343-88-0, Magnesium silicate 1344-00-9, Aluminosilicic acid, sodium salt 1390-65-4, Carmine 1406-16-2, Vitamin D 1406-18-4, Vitamin E 4086-70-8, Magnesium myristate 5281-04-9, D&C Red 7 Calcium Lake 9002-89-5, Poly (vinyl alcohol) 9004-34-6D, Cellulose, esters 9004-34-6D, Cellulose, ethers 9004-57-3, Ethyl cellulose 9011-13-6, Maleic anhydride-styrene copolymer 9011-14-7, Poly(methyl methacrylate) 10043-11-5, Boron nitride, biological studies 10124-68-2D, N-Octylacrylamide, polymers 11103-57-4, Vitamin A 11118-57-3, Chrome oxide 12001-76-2, Vitamin B 12001-79-5, Vitamin K 12227-89-3, Black Iron Oxide 13463-67-7, Titanium dioxide, biological studies 15876-39-8 24938-16-7, Eudragit E 100 25013-16-5, Butylated hydroxyanisole 25086-15-1, Methacrylic acid-methyl methacrylate copolymer 51274-00-1, Yellow Iron Oxide 66322-05-2, Linoleic acid-linolenic acid mixture 67907-01-1 81103-11-9, Clarithromycin 83905-01-5, Azithromycin 106392-12-5, Ethylene glycol-propylene glycol block copolymer 178806-87-6, Eudragit RSPO
(microencapsulation with wall-forming polymer for topical controlled release of active ingredient)

L42 ANSWER 11 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2005:311978 USPATFULL		
TITLE:	Sanitizing composition and method of preparation		
INVENTOR(S):	Brown, James S., Gilbert, AZ, UNITED STATES		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005271595	A1	20051208
APPLICATION INFO.:	US 2005-102017	A1	20050409 (11)
	NUMBER	DATE	
PRIORITY INFORMATION:	GB 2004-12329	20040603	
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	The Halvorson Law Firm, Ste 130, 1757 E. Baseline Rd., Gilbert, AZ, 85233, US		
NUMBER OF CLAIMS:	17		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1314		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB . . . texture and are capable of being worn away when rubbed. The particles may deliver one or more agents to the skin e.g. antimicrobial, antibacterial or antiviral agents, emollients and/or moisturizers, fragrances, colourings or UV markers.

SUMM Hand hygiene is of primary importance in controlling infection in a health care environment. There exist specific standards to specify when, where. . . . to enforce these standards to the point at which infection rates decrease. Enforcing these, or any future updated standards of hygiene will be crucial in controlling hospital infection. Unfortunately, many HCW fail to clean their hands properly thereby aiding the cross-inoculation. . . .

SUMM . . . . wash their hands, and may not do so if it is too inconvenient. Constant washing with soap can also cause skin irritation and dryness. All these factors contribute to the need to make handwashing more attractive and convenient to the HCW in order to improve health hygiene standards.

SUMM . . . because of their ability to denature proteins. Alcohol has an

excellent initial antimicrobial log reduction activity of gram-postive and gram-negative bacteria, fungi and multi-drug resistant pathogens such as Vancomycin-resistent Enterococcus (VRE) and methicillin-resistent Staphylococcus aureus (MRSA).

SUMM Extra antimicrobial agents have been dissolved into the alcohol of known AHS formulations to give greater efficacy against bacterial, viral and fungal pathogens than simple AHS formulations. This is taught by U.S. Pat. No. 6,248,343 to Jampani et al, and U.S. Pat.. . . .

SUMM Constant use of AHS can cause unpleasant irritation and dryness of the skin. Some AHS have added emollients and moisturisers to the formulation to combat the dehydrating effect that alcohol has on skin. An emollient is a product that makes dry or sore skin softer or less painful and a moisturiser is a product for application to skin to stop it from becoming dry. Many products provide both emollient and moisturizing properties.

SUMM . . . hand cleanser comprising an effective amount of alcohol to produce a reduction in micro organisms on the surface of the skin, and emollients or oils for skin moisturising. In the above patents, the moisturiser is simply added to the alcoholic base formulation to tackle it's dehydrating effects.

SUMM . . . and prevent the spread of infections. There is a need for a better, more effective method of enforcement of hand hygiene standards.

SUMM In one embodiment, the present invention provides a novel antimicrobial AHS that facilitates the enforcement of proper hand hygiene standards by incorporating particles in the alcohol formulation. The suspended particles are sufficiently hard have a gritty feeling and disappear. . .

SUMM By appropriate choice of particle, the antimicrobial AHS can be designed to be compatible with HCW skin and can take into account the personal preferences of the HCW. For example, the particles may contain an emollient and/or. . . ingredients can be provided in the AHS contained in hard, suspended particles. The AHS particles can be modified to combat bacteria, bacterial spores, viruses', and fungus/yeast, specific to the requirements of the health care environment at the time. If desired, the suspended particles can be seen. . .

SUMM . . . contains a high amount of alcohol. Further, the prior art provides no guidance to solve the problem of enforcing hand hygiene standards.

SUMM The present invention seeks to provide a sanitizing composition for the enforcement of hand hygiene standards, so as to overcome, or at least reduce the above-mentioned problems of the prior art.

DETD . . . major component of the proposed sanitizing composition is alcohol. It is useful as an agent for the immediate disinfection of topical surfaces e.g. the hands of HCW. Alcohol is well known to dehydrate the skin and the larger the proportion of alcohol, the greater the dehydrating effects. A solution made of pure alcohol would be very dehydrating and damaging to the skin if used regularly to wash hands. The quantity of alcohol contained within the composition may vary from 30 to 95%. . .

DETD . . . worn away when rubbed. The particles need to be sufficiently hard so that the HCW can feel them on their skin and feel compelled to rub their hands until they are completely gone, although not so hard that they are abrasive or uncomfortable to the skin .

DETD Preferably, the suspended particles are of a size, hardness and uniformity, so that when the composition is rubbed into the skin , the suspended particles are worn away until they can no longer be felt against the skin. The particles can be made to `disappear` after a controllable amount of rubbing energy has been expended. For this reason,. . . The presence of the particles enforces a more thorough application of the composition thereby facilitating the enforcement of proper hand hygiene standards in the health care environment.

DETD In deciding on the size and hardness of the particles to be used for enforcing hand hygiene standards, the particles should desirably have a measured and constant resistance to being abraded as they are rubbed into the skin. The resistance is determined by both the physical size of the particle and its chemical structure. For any given particle,. . .

DETD Preferably, the particles are formed of a composition that will spread and be absorbed into the skin.

DETD These particles may deliver one or a combination of agents directly to the skin e.g. antimicrobial agents, emollients and/or moisturisers, fragrances, colourings and UV markers. Preferably, the agent(s) is (are) substantially uniformly distributed throughout. . . direct influence on the concentration of the particles in solution. These attributes play a decisive role in achieving improved hand hygiene in a health care environment.

DETD . . . of the particles contain an emollient and/or moisturizer. The incorporation of one or more agents that soften and soothe the skin and provide moisturization within the alcohol/water gel helps to overcome skin irritation, dermatitis and dry skin objections that HCW have against traditional washing methods.

DETD . . . composition may deliver one or more of a number of different active antimicrobial agents directly to the surface of the skin via the suspended particles, without being partially volatilized by the evaporating alcohol. Choice of antimicrobial active can be made visually. . . size and colour of the particle. Such antimicrobial agent may be utilized and substituted at will to give efficacy against bacteria, virus, fungus/yeast and spores. The antimicrobial agent may also be used against methicillin resistant Staphylococcus aureus (MRSA), vancomycin resistant enterococci (VRE), and. . .

DETD . . . which microbes will not develop resistance. Agents can also be chosen which have reduced propensity to induce allergic response and skin toxicity. Studies have shown that traditional alcohol rubs are ineffective in eliminating bacillus atrophaeus (surrogate for anthrax) and spores from hands. Unlike the existing AHS, the composition of the invention is effective against bacterial spores, as it could contain agents such as chlorhexidine gluconate, which are delivered via the suspended particles.

DETD The composition of the invention can offer hospital management speed and flexibility of targeting a critical microbe, whether it is bacterial, viral, fungal or spores, without having to change the equipment, procedures, training or previously purchased sanitizing agent. The composition of the invention can be tailor-made to suit the hospital needs. For example, if there occurred a sudden outbreak of a bacterial infection such as MRSA, a relevant antimicrobial counter-agent, such as allicin, could be added in the form of particles to. . .

DETD . . . reducing the amount of cross-contamination and thus reducing the numbers of afflicted people who require isolation. Also enforcement of hand hygiene standards will increase the efficacy of isolation.

DETD . . . necessary. A composition containing a fragrance may also provide proof of use. HCW supervisors are able to enforce proper hand hygiene standards if they can smell whether or not HCW are using the composition.

DETD . . . HCW supervisors to easily enforce that HCW are indeed using the composition and that they are adhering to proper hand hygiene standards. UV markers that glow under a UV light source will be left on the hands after handwashing. The `hand. . .

DETD . . . neutralizing agent may also be present in the composition to create a formulation that is closer to the pH of skin. This ingredient is not a critical addition. However, an alcohol/water formulation whose pH has been modified, will be less damaging to the skin and thus the user will be less inclined to reduce usage. Neutralizing agents, such as, diisopropanolamine, triethanolamine, potassium hydroxide and. . .

DETD . . . knowledge of the contents of the composition, the user can be assured that the composition is less harmful to the skin and that it contains the relevant active ingredients to be effective. The peace of mind gained from the acquired knowledge of the content of a particular composition, facilitates the enforcement of proper hand hygiene standards.

DETD The present invention facilitates enforcement of proper hand hygiene standards by incorporating particles within the alcohol/water fluid. The composition can be designed to be more compatible with HCW needs, more effective, aesthetically pleasing, and non-skin dehydrating. Changes can be readily made to the composition that makes it more convenient and attractive to the HCW. This. . . composition. As described above, various active ingredients can be provided within the particles. The particles can be modified to combat bacteria, viruses, fungus/yeast and possibly spores, specific to the requirements of the health care environment at the time. If the sanitizer incorporates an. . . invention is a more effective sanitizer than conventional AHS because the antimicrobial agents leave a residue active agent on the skin after washing. Preferably, the particles are coloured and can be distinguished visually; therefore it is possible to identify the ingredients. . . The suspended particles can be felt by the HCW during use. They wear away and preferably spread and absorb into skin only after a standard and controllable amount of rubbing energy has been expended. For this reason, a HCW is compelled. . .

CLM What is claimed is:

13. A method of preparing a sanitizing composition suitable for the enforcement of hand hygiene standards said method comprising the steps of: mixing together an alcohol, water and a thickener to form a viscous liquid. . .

IT 26161-33-1, Polyquaternium 37 26427-01-0 26590-05-6, Polyquaternium 7 26635-75-6 26658-19-5, Sorbitan tristearate 26982-05-8 27841-04-9, Neopentyl glycol diheptanoate 28510-23-8 28874-51-3 29710-25-6, 2-Ethylhexyl 12-hydroxystearate 31692-79-2D, reaction products with arginine, cysteine and panthenol 31694-55-0, Glycereth-12 31694-55-0D, tallow esters 32130-27-1D, N-cocoyl derivs. 33939-65-0 34345-47-6 34700-84-0D, salt with dimethicone copolyol phthalate 34769-44-3, Sodium usnate 36393-20-1, Zinc aspartate 36574-66-0D,

soya fattyl acyl derivs. 36574-66-0D, N-cocoacyl derivs. 36653-82-4, Cetyl alcohol 36653-82-4D, Cetyl alcohol, esters 37309-58-3D, Polydecene, hydrogenated 37318-95-9, Glyceryl laurate 37321-65-6, Propylene glycol stearate 39280-86-9, Hydroxyethylchitosan 39421-75-5, Hydroxypropyl guar 39464-87-4, Sclerotium gum 51744-92-4 52794-79-3, Isostearamide DEA 53320-86-8 53694-17-0, Polyquaternium 22 54392-28-8, PEG-160 sorbitan triisostearate 55069-72-2 55819-53-9 56265-06-6, Arginine PCA 56863-02-6 58401-56-2 59231-42-4, Diethanolamine linoleate 59675-34-2D, N-cocoacyl derivs. 59792-81-3 61682-73-3 62479-36-1, Diisostearyl adipate 63317-82-8, Octacosanyl stearate 65497-29-2, Guar hydroxypropyltrimonium chloride 65930-07-6 67167-59-3, Polyethylene glycol stearate 67352-02-7D, cocoyl esters 68025-34-3 68869-37-4D, wheat germ acyl derivs. 68890-66-4, Piroctone olamine 68958-56-5, Polyethylene glycol diisostearate 69364-63-2 70969-57-2 71010-52-1, Gellan gum 71812-38-9, Sorbitan sesquiisostearate 73298-57-4, Sodium carbomer 74563-64-7, Phytantriol 74819-90-2, Octyl 12-hydroxystearate 80455-45-4, Cetyl hydroxyethyl cellulose 83615-24-1, Cholesterol isostearate 84069-44-3, Hydroxypropyl chitosan 84563-77-9, Chitosan glycolate 85252-25-1, Isodecyl salicylate 91776-00-0, PEG 120 methyl glucose dioleate 92232-12-7 93507-51-8 94313-91-4 97995-15-8 100760-65-4 101659-01-2, Sodium magnesium silicate 102516-09-6D, copolymers with acrylates 102868-96-2 103300-27-2 106392-12-5 , Poloxamer 117522-93-7, Chitosan PCA 121708-81-4 123776-56-7 129423-55-8 129423-60-5 130501-87-0, Stearalkonium bentonite 131252-83-0 135507-00-5, Dimethylsilanol hyaluronate 137296-15-2 138048-90-5D, reaction products with wheat 138455-96-6 138483-17-7 143637-07-4, Glyceryl alginate 145706-87-2 146126-21-8, Glyceryl polymethacrylate 147730-40-3D, Decadiene, PVMIMA crosspolymer 153311-77-4 154441-65-3, Stearamine oxide 176429-87-1, Carbopol ETD 2020 195739-91-4, Carbopol Ultrez 10 197969-51-0, Polyquaternium-47 220326-00-1 221355-22-2, Sodium hydroxypropyl starch phosphate 422508-16-5 473452-81-2 608214-30-8 674304-22-4, Sodium acrylate-vinyl isodecanoate copolymer 870707-39-4 870707-40-7 870716-39-5 870716-92-0, Florasomes MXS 870716-93-1, Florasomes MXS Blue 870716-94-2, Florasomes MXS Green 870716-95-3, Florasomes MXS Orange

(hand sanitizing composition containing alc., water, thickener and particles)

L42 ANSWER 12 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2005:117346 USPATFULL
TITLE:	Virucidal activities of cetylpyridinium chloride
INVENTOR(S):	Capps, Charles L., Little Rock, AR, UNITED STATES
PATENT ASSIGNEE(S):	ViraTox, L.L.C., Little Rock, AR, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005100612	A1	20050512
APPLICATION INFO.:	US 2004-939307	A1	20040910 (10)

RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2003-703969, filed on 7 Nov 2003, PENDING
DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	VINSON & ELKINS L.L.P., 1001 FANNIN STREET, 2300 FIRST CITY TOWER, HOUSTON, TX, 77002-6760, US

NUMBER OF CLAIMS: 156
EXEMPLARY CLAIM: 1
LINE COUNT: 1060
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . broad based antibacterial properties, thus making it an active ingredient for the inactivation of both gram negative and gram positive bacteria. Examples of bacteria that are known to be susceptible are: Escherichia coli, Salmonella typhimurium, Pseudomonas aeruginosa, Bacillus anthracis, Bacillus subtilis, Campylobacter, Listeria, Staphylococcus aureus, and Streptococcus pneumoniae. Cetylpyridinium chloride is also known for its antifungal properties affecting such fungi as Candida albicans and spp., Saccharomyces cerevisiae, Torulopsis glabrata, Trichophyton sp., Aspergillus flavus and niger, Stachybotrys atra, Chaetomium globosum, Histoplasma. . .

SUMM The recognized broad spectrum antimicrobial antiseptic effect of CPC without disturbance of intra-oral bacterial flora has resulted in its common use in oral rinses and lozenges. Commercial oral rinse products include, for example, Scope®. . . as an active ingredient in the reduction and inhibition of plaque and gingivitis, thus encouraging its use as a dental hygiene constituent (Hunter-Rinderele et al., J. Clin. Res. 72:107113, 1997). However, much evidence exists wherein the efficacy of CPC as an. . . oral care products (Addy et al., J. Dent. Res. 72:719, 1993). Other commercial antiseptic product applications include feminine washes and topical antiseptics for abrasions and minor wounds.

DETD The present invention further provides methods for protecting (e.g., protecting from contamination of a microorganism) or decontaminating an area (e.g., decontaminating an area by inactivating viral particles in the area) comprising exposing the area to. . .

DETD . . . throat and respiratory tract and causes a susceptibility to infection by other microbial organisms by weakening tissues and inviting secondary bacterial infections. In the present invention, delivery of CPC to these areas via a spray, such as by a pump device or a propelled aerosol, would enable contact destruction of the virus as well as secondary infectious bacterial agents sensitive to CPC. Such devices are readily available in the marketplace and include metered dose inhalants by Cambridge Consultants. . .

DETD . . . CPC solution to mucosal surfaces of the respiratory tract would benefit the infected individual by inhibiting secondary infections associated with bacteria.

CLM What is claimed is:

80. The method of claim 52, wherein the infected surface area is a mucous membrane.

81. The method of claim 80, wherein the mucous membrane is selected from the group consisting of: in the nasal cavity; a buccal cavity, an oropharyngeal cavity, a urogenital tract. . .

125. The method of claim 94, wherein the surface contaminated with a virus is a mucous membrane in the buccal cavity.

126. The method of claim 94, wherein the surface contaminated with a virus is a mucous membrane in the nasal cavity.

153. The method of claim 128, wherein the surface area of virally infected tissue is a mucous membrane in the buccal cavity.

154. The method of 128, wherein the surface area of virally infected tissue is a mucous membrane in the nasal cavity.

IT 77-92-9, Citric acid, biological studies 123-03-5, Cetylpyridinium chloride; 546-46-3, Zinc citrate 557-05-1, Zinc stearate 557-34-6, Zinc acetate 1120-44-1, Cupric oleate 1314-13-2, Zinc oxide, biological studies 1405-89-6, Zinc bacitracin 3486-35-9, Zinc carbonate 7681-65-4, Cuprous iodide 9004-32-4, Sodium carboxymethylcellulose 9004-34-6D, Cellulose, ether 9004-65-3, Hydroxypropyl methylcellulose 9005-65-6, Tween 80 16283-36-6, Zinc salicylate 25301-02-4, Tyloxapol 691397-13-4, Pluronic (virucidal liqs. containing cetylpyridinium chloride and detergents and enhancers)

L42 ANSWER 13 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2005:117335 USPATFULL
TITLE:	Virucidal activities of cetylpyridinium chloride
INVENTOR(S):	Capps, Charles L., Little Rock, AR, UNITED STATES
PATENT ASSIGNEE(S):	ViraTox, L.L.C., Little Rock, AR, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005100601	A1	20050512
APPLICATION INFO.:	US 2003-703969	A1	20031107 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	VINSON & ELKINS L.L.P., 1001 FANNIN STREET, 2300 FIRST CITY TOWER, HOUSTON, TX, 77002-6760, US		
NUMBER OF CLAIMS:	138		
EXEMPLARY CLAIM:	1		
LINE COUNT:	865		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . broad based antibacterial properties, thus making it an active ingredient for the inactivation of both gram negative and gram positive bacteria. Examples of bacteria that are known to be susceptible are: Escherichia coli, Salmonella typhimurium, Pseudomonas aeruginosa, Bacillus anthracis, Bacillus subtilis, Campylobacter, Listeria, Staphylococcus aureus, and Streptococcus pneumoniae. Additionally, cetylpyridinium chloride is also known for its antifungal properties affecting such fungi as Candida albicans and spp., Saccharomyces cerevisiae, Torulopsis glabrata, Trichophyton sp., Aspergillus flavus and niger, Stachybotrys atra, Chaetomium globosum, Histoplasma. . .

SUMM The recognized broad spectrum antimicrobial antiseptic effect of CPC without disturbance of intra-oral bacterial flora has resulted in its common use in oral rinses and lozenges. Commercial oral rinse products include Scope® (Procter and. . . efficacy as an active ingredient in the reduction and inhibition of plaque and gingivitis, thus encouraging use as a dental hygiene constituent (Hunter-Rinderele et al., J. Clin. Res. 72:107113, 1997). However, much evidence exists wherein the efficacy of CPC as an. . . oral care products (Addy et al., J. Dent. Res. 72:719, 1993). Other commercial antiseptic product applications include feminine washes and topical antiseptics for abrasions and minor wounds.

DETD The present invention further provides methods for protecting (e.g.,

protecting from contamination of a microorganism) or decontaminating an area (e.g., decontaminating an area by inactivating viral particles in the area) comprising exposing the area to. . .

DETD . . . throat and respiratory tract and causes a susceptibility to infection by other microbial organisms by weakening tissues and inviting secondary bacterial infections. In the present invention, delivery of CPC to these areas via a spray, such as by a pump device or a propelled aerosol, would enable contact destruction of the virus as well as secondary infectious bacterial agents sensitive to CPC. Such devices are readily available in the marketplace and include metered dose inhalants by Cambridge Consultants. . .

DETD . . . rhinoviruses, the 0.025% solution to mucosal surfaces of the respiratory tract would benefit by then inhibiting secondary infections associated with bacteria.

CLM What is claimed:

72. The method of 48, wherein the infected surface area is a mucous membrane in the buccal cavity.

73. The method of 48, wherein the infected surface area is a mucous membrane in the nasal cavity.

109. The method of 86, wherein the surface contaminated with corona virus is a mucous membrane in the buccal cavity.

110. The method of 86, wherein the surface contaminated with corona virus is a mucous membrane in the nasal cavity.

135. The method of 112, wherein the surface area of virally infected tissue is a mucous membrane in the buccal cavity.

136. The method of 112, wherein the surface area of virally infected tissue is a mucous membrane in the nasal cavity.

IT 546-46-3, Zinc citrate 557-05-1, Zinc stearate 557-28-8, Zinc propionate 557-34-6, Zinc acetate 1120-44-1, Cupric oleate 1314-13-2, Zinc oxide, biological studies 1314-22-3, Zinc peroxide 1405-89-6, Zinc bacitracin 3486-35-9, Zinc carbonate 7681-65-4, Cuprous iodide 7790-37-6, Zinc iodate 9004-32-4, Sodium carboxymethyl cellulose 9004-65-3, Hydroxypropyl methyl cellulose 9005-65-6, Tween 80 9083-53-8, Triton (surfactant) 10139-47-6, Zinc iodide 16283-36-6, Zinc salicylate 25301-02-4, Tyloxapol 691397-13-4 , Pluronic

(aqueous virucidal compns. containing cetylpyridinium chloride and activity enhancers for mucosal infection treatment)

L42 ANSWER 14 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2005:52312 USPATFULL		
TITLE:	Personal care formulations		
INVENTOR(S):	Luriya, Elena, 8/17 Naftali Ben Efraim, Rehovot 76217, ISRAEL Luriya, Leonid, 8/17 Naftali Ben Efraim, Rehovot 76217, ISRAEL		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6861060	B1	20050301
APPLICATION INFO.:	US 2000-557098		20000421 (9)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Kishore, Gollamudi S.
LEGAL REPRESENTATIVE: Greenberg Traurig LLP, Rzucidlo, Eugene C.
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 891
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Personal care and hygiene formulations for topical application to mucosal surfaces. These formulations include an amphiphilic lipid carrier in the form of a colloidal composition which can. . . of carrying a large amount of active agent for controlled and prolonged release thereof at the desired site, such as mucous membrane surfaces and surrounding tissue. Accordingly, the present invention provides a formulation for oral or topical application including an anti-microbial agent and a lipid. The agent is held by the carrier through a hydrophobic interaction and. . . controlled manner over a prolonged period of time. The lipid is also characterized by having a high adhesive capability towards mucous membrane surfaces. The lipid and the agent are preferably present in a ratio in a range of from about 1:10 to. . .

SUMM In the field of personal care and hygiene, many different formulations have been designed and employed commercially in a wide variety of "over-the-counter" medications and products for a number of purposes including oral hygiene and skin care. Many of these medications and products contain both a biologically active agent such, as for example, an anti-microbial agent,. . .

SUMM However, the currently available formulations for personal care and hygiene products suffer from a number of drawbacks, including lack of suitability of the carrier for its intended use. Most of. . .

SUMM . . . However, this reference does not teach or disclose the use of such particles for administration to a mucosal tissue or mucous membrane. Instead, the reference primarily teaches parenteral administration. Similarly, PCT Application No. WO 92/03121 discloses only colloidal particles for oral administration or for administration on the intact skin. Thus, the prior art does not teach the use of high ratio lipid particles for administration to a mucous membrane or mucosal surface.

SUMM . . . above drawbacks of the prior art carriers, there has been a long-felt need to provide formulations for personal care and hygiene which are multi-purpose and can be applied to a mucosal tissues. Such carriers must have high adhesion capability to ensure. . .

SUMM The present invention concerns new personal care and hygiene formulations for topical application to mucosal surfaces. These formulations include an amphiphilic lipid carrier in the form of a colloidal composition which can. . .

SUMM . . . of carrying a large amount of active agent for controlled and prolonged release thereof at the desired site, such as mucous membrane surfaces and surrounding tissue. Accordingly, the present invention provides a formulation for oral or topical application including an anti-microbial agent and a lipid. The agent is held by the carrier through a hydrophobic interaction and. . . controlled manner over a prolonged period of time. The lipid is also characterized by having a high adhesive capability towards

mucous membrane surfaces. The lipid and the agent are preferably present in a ratio in a range of from about 1:10 to. . .

SUMM According to the present invention, there is provided a formulation for topical application to a tissue selected from the group consisting of nasal, ophthalmic, oral cavity, vaginal and rectal, the formulation including:. . .

SUMM Hereinafter, the term "topical" refers to direct application to an external surface or to a cavity of tissues of the body. The term "ophthalmic". . . .

SUMM . . . mouth, malodorous breath, and microbial infection. More preferably, the microbial infection includes an infection selected from the group consisting of bacterial, viral and fungal.

SUMM According to another embodiment of the present invention, there is provided a method for the preparation of a formulation for topical application to a tissue selected from the group consisting of ophthalmic, oral cavity, vaginal and rectal, the method including the. . .

SUMM . . . to still another embodiment of the present invention, there is provided a method for the preparation of a formulation for topical application to a tissue selected from the group consisting of ophthalmic, oral cavity, vaginal and rectal, the method including the. . .

DETD The present invention concerns new improved formulations for local oral and other topical mucosal applications which contain a biologically active agent. These formulations are therefore particularly useful for the purposes of oral hygiene and for the purposes of antiseptic treatment of the mucosal surface.

DETD . . . is released by a slow-release process over a prolonged period. These formulations are useful as mouth wash formulations for oral hygiene. After contacting the oral cavity, the carrier with the anti-microbial agent will first adhere to the mucosal surface of the. . . oral application of the formulation only about once a day. Such oral formulations are therefore effective for maintaining general oral hygiene and specifically to combat tooth decay, gum disease and malodorous breath.

DETD . . . the biologically active agent, which in their case, serve as anti-microbial agents. These preferred formulations are intended primarily for personal hygiene products including mouth wash-formulations and chewing gum, and cosmetic products including various formulations and liquid soaps.

DETD Suitable biologically active agents include agents which can be used to treat an existing condition of the skin, or of the rectal, vaginal or oral cavities, or to prevent such a condition from arising as a prophylactic measure.. . . agent which is active against a microbe is referred to as an "anti-microbial agent". Hereinafter, the term "microbial infection" includes bacterial, viral and fungal infections.

CLM What is claimed is:

6. The formulation of claim 5, wherein said microbial infection is selected from the group consisting of bacterial, viral, and fungal.

21. The formulation of claim 5, wherein said microbial infection is selected from the group consisting of bacterial, viral, and fungal.

IT 151-21-3, Sodium lauryl sulfate, biological studies 9004-81-3,

Polyethylene glycol laurate 9005-64-5, Tween-20 9005-65-6, Tween-80 12597-72-7, Triton (particle) 25301-02-4, Tyloxapol 25618-55-7, Polyglycerine 106392-12-5, Pluronic
(surfactant; topical formulations for mucosal applications containing bioactive agents and amphiphilic phospholipid carriers having high adhesive properties to mucosal tissue)

L42 ANSWER 15 OF 39 USPATFULL on STN
ACCESSION NUMBER: 2004:306462 USPATFULL
TITLE: Multi-purpose polymers, methods and compositions
INVENTOR(S): Tamareselvy, Krishnan, Brecksville, OH, UNITED STATES
Greenslade, Charles T., Willoughby, OH, UNITED STATES
Schmucker-Castner, Julie F., Strongsville, OH, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004241130	A1	20041202
APPLICATION INFO.:	US 2004-795666	A1	20040308 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2003-646856, filed on 22 Aug 2003, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-410697P	20020913 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: NOVEON IP HOLDINGS CORP., 9911 BRECKSVILLE ROAD, CLEVELAND, OH, 44141-3247
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 4166
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
SUMM . . . as a film forming conditioner, and for promoting the deposition of color cosmetics and of polar and non-polar oils on skin, hair, or both. Further, the polymers can be employed in products for industrial chemical processes, textile finishing processes, printing, adhesive coating,. . .
DETD . . . cationic associative polymers are useful in compositions containing a relatively high concentration (e.g. 10-40%) of anionic surfactant, and also provide hair setting efficacy.
DETD . . . The term "personal care products" as used herein includes, without being limited thereto, cosmetics, toiletries, cosmeceuticals and beauty aids, personal hygiene and cleansing products applied to the skin, hair, scalp, and
nails of humans and animals. The term "health care products" as used herein includes, without being limited thereto, pharmaceuticals, pharmacosmetics, oral. . . applied to or into the body of humans and animals for ameliorating a health-related or medical condition, for generally maintaining hygiene or well-being, and the like. The term "body" includes the keratinous (hair, nails)
and non-keratinous skin areas of the entire body (face, trunk, limbs, hands and feet), the tissues of body openings and eyes, and the term "skin" includes the scalp and mucous membranes.
The term "household care products" as used herein includes, without being limited thereto, products employed in a. . .

DETD . . . is achieved. For example, personal care and health care products containing a cationic associative polymer can be applied to the skin, hair, scalp and nails in the form of, without being limited thereto, gels, sprays (liquid or foam), emulsions (creams, lotions, pastes), liquids (rinses, shampoos),. . .

DETD [0137] The cationic associative polymers of the invention are suitable for the preparation of personal care (cosmetics, toiletries, cosmeceuticals) and topical health care products, including without limitation, hair care products, such as shampoos (including combination shampoos, such as "two-in-one" conditioning shampoos); post-shampoo rinses; setting and style maintenance agents including setting aids, such as gels and sprays, grooming aids, such as pomades, conditioners, perms, relaxers, hair smoothing products, and the like; skin care products (facial, body, hands, scalp and feet), such as creams, lotions, conditioners, and cleansing products; antiacne products; antiaging products (exfoliant, keratolytic, anticellulite, antiwrinkle, and the like); skin protectants such as sunscreens, sunblock, barrier creams, oils, silicones, and the like; skin color products (whiteners, lighteners, sunless tanning accelerators, and the like); hair colorants (hair dyes, hair color rinses, highlighters, bleaches and the like); pigmented skin colorants (face and body makeups, foundation creams, mascara, rouge, lip products, and the like); bath and shower products (body cleansers,. . . wash, shower gel, liquid soap, soap bars, syndet bars, conditioning liquid bath oil, bubble bath, bath powders, and the like); nail care products (polishes, polish removers, strengtheners, lengtheners, hardeners, cuticle removers, softeners, and the like); and any aqueous acidic to substantially. . .

DETD . . . Toiletries and health and beauty aids, commonly referred to as HBAs, containing a cationic associative polymer, can include, without limitation, hair-removal products (shaving creams and lotions, depilatories, after-shave skin conditioners, and the like); deodorants and antiperspirants; oral care products (mouth, teeth and gums), such as mouthwash, dentrifrice, such as toothpaste, tooth powder, tooth polishes, tooth whiteners, breath fresheners, denture adhesives, and the like; facial and body hair bleach; and the like. Other health and beauty aids that can contain cationic associate polymers, include, without limitation, sunless tanning applications containing artificial tanning accelerators, such as dihydroxyacetone (DHA), tyrosine, tyrosine esters, and the like; skin depigmenting, whitening, and lightening formulations containing such active ingredients as kojic acid, hydroquinone, arbutin, fruital, vegetal or plant extracts, (lemon. . . and deodorant sprays, and medicated antifungal sprays, antiperspirant sprays, and the like), and foot and toenail conditioners (lotions and creams, nail softeners, and the like).

DETD [0139] Topical health and beauty aids that can include cationic associative polymers (e.g., as spreading aids and film formers) include, without being limited thereto, skin protective spray, cream, lotion, gel, stick and powder products, such as insect repellants, itch relief, antiseptics, disinfectants, sun blocks, sun screens, skin tightening and toning milks and lotions, wart removal compositions, and the like.

DETD . . . and the like, making them suitable for dermal products containing particulates, microabrasives, and abrasives, such as shower gels, masks and skin cleansers containing exfoliative scrub

agents. Numerous cosmetically useful particulate exfoliating agents are known in the art, and the selection and. . .

DETD . . . cationic associative polymers are useful as thickeners and film-formers in a variety of dermatological, cosmeceutical compositions employed for topically ameliorating skin conditions caused by drying, photodamage, aging, acne, and the like, containing conditioners, moisturizers, antioxidants, exfoliants, keratolytic agents, vitamins, and the. . . associative polymer is incorporated into these foregoing acidic product embodiments, the active acid ingredient can serve as both the active skin treatment agent and acid swelling agent f6r the cationic associative polymer to achieve the desired viscosity.

DETD [0142] In one cosmeceutical aspect, a cationic associative polymer can be employed as a thickener for active skin treatment lotions and creams containing, as active ingredients, acidic anti-aging, anti-cellulite, and anti-acne agents, hydroxy carboxylic acids, such as alpha-hydroxy. . .

DETD [0143] A discussion of the use and formulation of active skin treatment compositions is in COSMETICS & TOILETRIES®, C&T Ingredient Resource Series, "AHAs & Cellulite Products How They Work", published 1995,. . . ascorbic acid are described in U.S. Pat. No. 6,197,317B1, and a commercial cosmeceutical preparation utilizing these acids in an anti-aging, skin care regimen is sold under the tradename, AFAs, by exCel Cosmeceuticals (Bloomfield Hills, Mich.). The term "AFA", as described in. . .

DETD [0144] Other health care products in which cationic associate polymers can be included are medical products, such as topical and non-topical pharmaceuticals, and devices. In the formulation of pharmaceuticals, a cationic associative polymer can be employed as a thickener and/or lubricant. . . such products as creams, pomades, gels, pastes, ointments, tablets, gel capsules, purgative fluids (enemas, emetics, colonics, and the like), suppositories, anti-fungal foams, eye products (ophthalmic products, such as eyedrops, artificial tears, glaucoma drug delivery drops, contact lens cleaner, and the like),. . .

DETD . . . film-forming and acid-swellable character of the cationic associative polymer makes the cationic associative polymer particularly suitable as a vehicle for topical medical compositions for promoting and enhancing the transdermal delivery of active ingredients to or through the skin, for enhancing the efficacy of anti-acne agents formulations and topical analgesics, and for controlling release of drugs, such as antacids from tablets, or syrups, at low pH, such as in. . . to promote deposition of dandruff control agents from shampoos, salves, and the like; to enhance the deposition of colorants on skin from pigmented cosmetics (makeups, lipsticks, rouges, and the like) and on hair from hair dyes, and the like.

DETD . . . encompasses the properties of film-formation, adhesion, or coating deposited on a surface on which the polymer is applied. The terms "hair styling and hair fixative" as commonly understood in the hair care arts, and as used herein, refer collectively to hair setting agents that are hair fixatives and film formers and which are topically applied to the hair to actively contribute to the ease of styling and/or holding of a hair set, and to maintain the restylability of the hair set. Hence, hair setting compositions include hair styling, hair fixative, and hair grooming products that conventionally are applied to the

hair (wet or dry) in the form of gels, rinses, emulsions (oil-in-water, water-in-oil or multiphase), such as lotions and creams, pomades,. . . . non-pressurized), spritzes, foams, such as mousses, shampoos, solids, such as sticks, semisolids and the like, or are applied from a hair setting aid having the hair setting composition impregnated therein or coated thereon, to leave the hair setting agent in contact on the hair for some period until removed, as by washing.

DETD [0152] The term "conditioning agents", and grammatical variations thereof, as it relates to compositions for skin care and hair care includes cosmetically and pharmaceutically useful materials that are humectants, moisturizers, and emollients. It is recognized that some conditioning agents. . .

DETD [0153] A preferred hair care composition embodiment comprises a polymer of the present invention in an amount effective to provide to the hair care composition a property, such as a hair fixative property, a hair conditioning property, a viscid property (thickening, rheology modifying), or a combination thereof. Optionally, the hair care composition can include one or more auxiliary film-forming agent, auxiliary hair-fixative agent, auxiliary hair conditioning agent, auxiliary rheology modifying agent, or a mixture thereof.

DETD [0154] A preferred skin care composition embodiment comprises a polymer of the present invention in an amount effective to provide to the skin care composition a property, such as a skin conditioning property, a viscid property (thickening, rheology modifying), or a combination thereof. Optionally, the skin care composition can include one or more auxiliary skin conditioning agent, auxiliary rheology modifying agent, or a mixture thereof.

DETD [0157] It is known that formulated compositions for personal care and topical, dermatological, health care, which are applied to the skin and mucous membranes for cleansing or soothing, are compounded with many of the same or similar physiologically tolerable ingredients and. . .

DETD . . . and its function, as is well known to those skilled in the formulation arts. Formulation ingredients for personal care and topical health care products typically can include, but are not limited to, solvents, surfactants (as cleansing agents, emulsifying agents, foam boosters, hydrotropes, solubilizing agents, and suspending agents), nonsurfactant suspending agents, emulsifiers, skin conditioning agents (emollients, humectants, moisturizers, and the like), hair conditioning agents, hair fixatives, film-formers, skin protectants, binders, chelating agents, antimicrobial agents, antifungal agents, antidandruff agents, abrasives, adhesives, absorbents, dyes, deodorant agents, antiperspirant agents, opacifying and pearlescing agents, antioxidants, preservatives, propellants, spreading aids, sunscreen agents, sunless skin tanning accelerators, ultraviolet light absorbers, pH adjusting agents, botanicals, hair colorants, oxidizing agents, reducing agents, skin bleaching agents, pigments, physiologically active agents, anti-inflammatory agents, topical anesthetics, fragrance and fragrance solubilizers, and the like, in addition to ingredients previously discussed that may not appear herein. Oral. . .

DETD . . . and the like, and mixtures thereof. Non-aqueous or hydrophobic auxiliary solvents are commonly employed in substantially water-free products, such as nail lacquers, aerosol propellant sprays, or

for specific functions, such as removal of oily soils, sebum, make-up, or for dissolving dyes,. . .

DETD . . . a relatively high concentration (about 10-40 weight percent) of anionic surfactant, such as shampoos and two-in-one type liquid conditioning/cleansers for hair and body (bath) products. The present cationic associative polymers are compatible with cationic surfactants having antistatic activity, such as are employed in hair care products and fabric care products.

DETD . . . Non-limiting examples of tetraalkylammonium salts include cocamidopropyl ethyldimonium ethosulfate, hydroxyethyl cetyldimonium chloride, quaternium-18, and cocodimonium hyroxypropyl hydrolyzed protein, such as hair keratin, and the like.

DETD . . . term "antistatic agents" refers to ingredients that alter the electrical properties of cosmetic raw materials or of human body surfaces (skin, hair, etc.) and textiles, for example, by reducing their tendency to acquire an electrical charge and thus, can condition hair, skin and fabrics. The cationic compatibility of the cationic associative polymers makes them suitable for incorporation into formulations containing antistatic agents typically employed in hair care compositions, such as shampoos, post-shampoo conditioning rinses, hair sprays, hair dressings and the like. The antistatic agent can be employed in amounts up to about 30 weight percent of the. . .

DETD [0172] The term "hair setting composition" encompasses products comprising at least one polymer of the present invention as a hair setting agent, which are applied to the hair (wet or dry) before, during or after configuring the hair into the shape (curly or straight) desired, without limitation as to product form.

DETD [0173] The polymers of the present invention are surprisingly useful in hair setting and hair styling compositions as the sole film-forming, rheology modifying, conditioning fixative agent. The polymers of the present invention are also useful in combination with commercially available auxiliary hair fixative polymers, such as nonionic, cationic, and amphoteric hair setting polymers, cationic conditioning polymers, and combinations thereof. It was surprisingly found that unexpectedly increased viscosity and hair setting efficacy properties were produced by appropriate combinations of a polymer of the present invention with an auxiliary conventional hair fixative and/or hair conditioning polymer. Conventional polymeric hair fixative and hair styling polymers, well known in the art, include natural gums and resins and neutral or anionic polymers of synthetic origin. Listings of commercially available hair fixative and conditioning fixative polymers can be readily found in the INCI Dictionary, in supplier websites, and in the trade. . .

DETD [0174] Suitable commercially available nonionic polymers (i.e., neutral) used as hair styling or fixative polymers include, without limitation thereto, polyvinylpyrrolidone (PVP), polyvinylpyrrolidone/vinylacetate copolymer (PVPNA), and the like. Commercially available cationic fixative. . .

DETD . . . derivatives previously described, non-limiting examples of protein derivatives include cocodimonium hydroxypropyl hydrolyzed casein, cocodimonium hydroxypropyl hydrolyzed collagen, cocodimonium hydroxypropyl hydrolyzed hair keratin, cocodimonium hydroxypropyl hydrolyzed rice protein, cocodimonium hydroxypropyl hydrolyzed silk, cocodimonium hydroxypropyl hydrolyzed soy protein,

cocodimonium hydroxypropyl hydrolyzed wheat protein,. . .

DETD . . . amphoteric surfactants include cocamidopropyl betaine, sodium cocoamphoacetate, cocamidopropyl hydroxysultaine, and sodium cocoamphopropionate, which are particularly suitable as mild-type cleansers for skin and hair.

DETD . . . used as a thickener, film former, or as a dye or pigment suspending agent for promoting deposition of colorants on hair and skin. Colorants for hair can be temporary, semipermanent or permanent hair dyes or color restorers that pigment the hair gradually. Temporary and semipermanent hair dyes typically are rinses, gels, sprays, shampoos, sticks, and the like, and hair color restorers are typically in the form of hair dressings or emulsions. Permanent hair dyes, and longer-lasting semipermanent hair dyes, are generally two-part products, one part containing the oxidative dye intermediates and dye couplers, and the other part containing. . . usually hydrogen peroxide at about pH 3-4, and are mixed together immediately before use. It is known that such two-part hair dyeing products are formulated with combinations of surfactant ingredients, usually nonionic surfactants or anionic surfactants, to thicken when the dye mixture is prepared. In addition to the foregoing literature, a general discussion of hair dyeing chemistry and compositions is in Brown et al, SCC Monograph, "Permanent Hair Dyes", Society of Cosmetic Chemists (1996), incorporated herein by reference. The polymers of the present invention may be incorporated in one or both of the two-parts of such hair dyeing systems, either as the thickener for the acidic stabilized oxidizing portion or in the non-oxidizing portion to be thickened. . .

DETD [0191] In addition to ingredients discussed above, other ingredients commonly used for antiacne products, facial and body hair bleaches, and antiseptic products include oxidizing agents, such as hydrogen peroxide, benzoyl peroxide, and water-soluble inorganic persulfate compounds such as. . .

DETD . . . and waxes; and the like. Many oily materials are used as solvents, carriers, emollients, or conditioning agents, for example, in hair and skin care products.

DETD [0194] A particularly useful class of silicones for use in hair care products are the so-called rigid silicones (also known as silicone gums), as described, for example in U.S. Pat. No.. . .

DETD . . . in combination with the polymers of the present invention are the volatile silicones, which are often used as lubricants in hair care products, such as shampoos. Volatile silicones include cyclic and linear polydimethylsiloxanes, and the like. Cyclic volatile silicones typically contain. . .

DETD [0198] Numerous ingredients are known in the art as conditioning agents for hair or skin, and humectants, and in addition to those previously discussed, non-limiting examples include PCA (DL-pyrrolidone carboxylic acid) and its salts, such. . .

DETD [0245] E. High Humidity Curl Retention (HHCR). The hair setting efficacy of a polymer was measured by its ability to hold a curl set on hair after absorption of water from the applied composition and from the surrounding atmosphere at high humidity (about 90% Relative Humidity. . . .

DETD [0246] Tresses of commercially blended Caucasian untreated (virgin) human hair were prepared employing natural brown or black color European hair supplied by International Hair Importers and Products Inc., New York. Each hair tress (about

3 grams weight) was about 7 inches (about 18 cm) in length and was anchored with glue at the scalp (root) end portion. Prior to use, each hair tress was pre-cleaned by washing with a dilute aqueous solution of sodium lauryl sulfate (10% SLS), followed by thorough rinsing with deionized water at ambient room temperature and dried with towel blotting. The initial extended length of the hair (L.sub.e) was measured. About 0.8 grams of polymer-containing composition to be evaluated was applied to the hair tress and distributed uniformly from the scalp to end portion. The treated hair tress was then wrapped around a hair curler having an outer diameter of about 3 cm, and dried on the curler overnight at an ambient room temperature of about 21 to about 23° C. After drying, the curler was carefully removed, leaving the hair styled into a single curl, the initial length of the hair curl (L.sub.i) was measured, and the curled hair tress was vertically hung in a humidity chamber set at an ambient temperature of about 26 to about 27° C.. . .

DETD [0247] The percent curl retention (HHCR) was determined by measuring the length of the hair curl as the curl relaxed after selected intervals (L.sub.t) of exposure to humidity. The following equation was used to calculate percent curl retention, relative to the initial curl length (L.sub.i) and length of the fully extended hair, before curling (L.sub.e). ##EQU1##

DETD . . . a minimum period of about 0.75 hours at about 90% RH is a conventional benchmark for good high humidity resistance. Hair setting efficacy (i.e., HHCR) of about 70% for at least 1.25 hours to about 3 hours was judged very good,. . .

DETD Acidic Skin Care Emulsion

DETD . . . use of about 0.5 to about 0.6 active weight % cationic associative Polymer A of Example 1 in an acidic skin care emulsion containing about 5% alpha-hydroxy acid (lactic acid) in the formulation shown in Table 5.

TABLE 5

Ingredient
INCI/Trade Name. . .

DETD . . . by increasing the amount of cationic associative polymer as needed. The composition was judged suitable for use as an acidic skin care product of the type employing alpha-hydroxy acid (AHA), beta-hydroxy acid (BHA), and the like.

DETD Hair Conditioning Hair Setting Compositions

DETD . . . associative Polymer A of Example 1 as a thickener in two acidic aqueous gels (Ex. 6A, Ex. 6B) containing the hair fixative, polyvinylpyrrolidone (PVP), suitable for conditioning, fixing and styling hair. The compositions are shown in Table 7, along with Brookfield viscosity and % clarity.

TABLE 7

Ingredients	Ex. 6A	Ex. 6B
INCI/Trade. . .		

DETD . . . the glycolic acid. Both of the products were smoothly spreadable and free of any unaesthetic "stringy" character and provided good hair setting efficacy (70% HHCR for about 1 hour).

DETD Hair Conditioner

DETD [0285] This example illustrates the use of Polymer I (Ex. 8A, 8B) and

Polymer Q (Ex. 8C) in the hair conditioner formulations and in the active amounts shown in Table 9, along with shelf stability based on storage viscosity.

TABLE. . .

DETD Hair Conditioner

DETD . . . Example 1 at two concentrations (Ex. 9A, 9B) in the formulation shown in Table 10, suitable for use as a hair conditioner.

TABLE 10

Ingredient (INCI/Trade Name)	Weight % Active
Phase A	
Water, deionized, to 100%	q.s.
Polymer I in an amount indicated in. . .	

DETD [0318] Polymer W, in the absence of CTAC, was judged to be substantive to hair, based on a modification of the well known "Rubine Dye Test" for cationic sorption, using white yak hair and determining the sorption from a solution of about 0.5% Pyrazol dye (Clariant) adjusted to about pH 3.5 with glacial. . .

DETD Hair Care Setting and Conditioning Compositions

DETD . . . cationic associative polymer, Polymer AF of Example 1, Table 2A, at an active polymer weight of about 3% in aqueous hair care conditioning compositions, useful for setting, styling, and/or conditioning hair. In one study, Polymer AF was used alone, (Ex. 17A), as the sole conditioning, rheology modifying, film-forming hair-fixative polymer. In additional studies, Polymer AF was used in combination with an active polymer weight of about 3% of a commercial nonionic auxiliary hair-fixative polymer (Exs. 17B-17D); an active polymer weight of about 3% of a commercial cationic auxiliary hair-fixative polymer (Exs. 17E-17L); an active polymer weight of about 1% or 3% of a commercial amphoteric auxiliary hair-fixative polymer (Exs. 17M and 17N, respectively); or an active polymer weight of about 1% or about 3% of a commercial. . .

DETD . . . of the composition was noted, and after 24 hours, the Brookfield viscosity was measured, as well as turbidity, clarity, and hair setting efficacy, where measured, as discussed below. Unless indicated otherwise, the HHCR hair setting efficacy was calculated from the average values of 9 hair tresses/composition studied. The viscosity, turbidity and clarity results, where measured, are shown in Table 18A.

TABLE 18A

Ex.	Commercial Polymer	Viscosity. . .

DETD . . . as the sole conditioning, fixative polymer had a pH of about 4.1, was a clear gel, and, surprisingly, provided excellent hair setting efficacy (HHCR of 70% was about 4 hours, and HHCR at about 8 hours was about 57%).

DETD . . . (Ex. 17D) had a pH in the range of about 4.3 to about 5.5, and were substantially clear gels. The hair setting efficacy of the composition of Ex. 17B was judged very good (HHCR of 70% for at least about 3. . . composition containing the combination of Polymer AF and PVP or PVPNA (Ex. 17C and Ex. 17D) provided good to weak hair setting efficacy (HHCR of 70% was less than 1 hour, and HHCR at about 8 hours was about 27 to about 31%), making these

compositions more suitable for temporary grooming or shaping of hair than for hair holding. Ex. 17D was judged relatively stiff and suitable for achieving novelty hair shapes.

DETD . . . The compositions of Exs. 17E, 17F, 17H, 17K, and 17L were substantially clear. The composition of Ex. 17E provided excellent hair setting efficacy (HHCR of 70% or more for at least about 8 hours), and the composition of Ex. 17K provided excellent hair efficacy for up to about 24 hours (HHCR of 91% for at least about 8 hours, and 88% at about. . . . 24 hours), and the texture of the compositions was judged aesthestically smooth. The composition of Ex. 17I provided very good hair setting efficacy (HHCR of 70% for more than 1 hour but less than about 2 hours) and the texture of the composition was judged relatively stiff. The composition of Ex. 17H was translucent and smooth textured and provided excellent hair setting efficacy (HHCR of about 96% or more for up to about 24 hours). The composition of Ex. 17J had a high viscosity, was visibly turbid (slightly cloudy), and provided excellent hair setting efficacy (HHCR of 70% for at least about 7 hours, and an HHCR of about 64% at about 8. . .

DETD . . . 4.4. The composition of Ex. 17M had a viscosity of about 71,400 mPa.s, was opaque and provided good to weak hair setting efficacy (HHCR of 70% of less than one hour, and 37% at about 8 hours). The composition of Ex.. . .

DETD . . . pH of about 4.2 to about 4.3. The composition of Ex. 17O was a turbid, tacky gel, which provided excellent hair setting efficacy (HHCR of more than 90% for up to about 24 hours), making it suitable for use for specialty or novelty hair styles and where high hold is desired. The compositions of Ex. 17P had a high viscosity, was opaque, and provided excellent hair setting efficacy (HHCR of more than 90% for up to about 24 hours). The composition of Ex. 17Q had a high viscosity, was smooth, and provided very good hair setting efficacy (HHCR of 70% or more for at least 2 hours, and an HHCR of about 51% at about. . .

DETD . . . step 1, the commercial polymers were dispersed in a mixture of ethanol SD-40 and water, so that the final hydroalcoholic hair care composition contained about 10 weight percent ethanol. The alcohol decreased the viscosity of all the compositions, except for Exs.. . .

DETD . . . was a substantially clear gel (turbidity of about 21.4 NTU) of slightly lower viscosity (about 34,100 mPa.s) and provided excellent hair setting efficacy (HHCR of 70% increased to about 5 hours).

DETD . . . NTU (Ex. 17C) to about 28 NTU (Ex. 17B), and the clarity of Ex. 17D increased to about 71.1%T). The hair setting efficacy of Ex. 17B increased to excellent (HHCR of 70% was about 5 hours).

DETD . . . clarity of the compositions of Exs. 17E, 17H, and 17K, respectively increased to about 65.5, 76.6 and 71%T). The excellent hair setting efficacy of the composition of Ex. 17E was unchanged by the presence of the alcohol (HHCR of 70% was. . .

DETD . . . hydroalcoholic composition of Ex. 17P had a slightly increased viscosity of about 7,000 mPa.s, was opaque, and retained its excellent hair setting efficacy (HHCR of 24 hours). The alcohol in the composition of Ex. 17Q decreased the viscosity and improved the. . .

DETD Hair (Conditioner Compositions)

DETD [0333] This example illustrates the use of cationic associative polymer, Polymer Y of Example 1, Table 2, in hair conditioner compositions, at an active polymer weight of about 2% as the sole conditioning agent (Ex. 18A), and in combination. . .

DETD Instrumental Hair Combing

DETD [0342] The wet combing properties of the hair conditioner compositions of Examples 18A, 18B, and 18C were instrumentally evaluated using the well known Texture Analyzer (Texture Technology Corp.). . . . temperature of about 23° C. and ambient humidity of about 50% RH. A tress of bleached European, natural brown, human hair was dampened with deionized water, about 2 grams of a conditioner was evenly applied by hand and distributed with the thumb and forefinger through the hair tress for about one minute, and then the tress was rinsed with lukewarm tap water for about 30 seconds. The. . . by the A/TG tensile grip of the Texture Analyzer instrument and combed by raising the tensile grip to pull the hair through the fine-tooth section of the comb at a rate of about 3 mm/s until the full length of the. . . procedure was repeated four times on the same tress, for a total of five comb-through pulls. For baseline measurement, each hair tress was measured five times for comb-through before applying test composition, and measurements were repeated after applying test composition, and. . .

DETD Acidic Surfactant Skin Cleanser

DETD [0344] This example illustrates the compatibility of Polymer AF of Example 1, with anionic surfactants in an acidic surfactant skin cleanser formulation, containing an amphoteric hydroxy complex of alpha-hydroxy acid (Lactic acid) and L-Arginine.

TABLE 22

Ingredient INCI/Trade Name. . .

DETD [0351] Shampoo 24A was judged suitable for coloring the hair during use, and for maintaining the hair color through continued use as a treatment shampoo.

DETD . . . following the procedure of Shampoo 24A, except that no colorant dyes were present. Shampoo 24B was judged suitable for washing hair that has been colored or chemically treated without removing the color from the hair.

DETD . . . carried out at room temperature and ambient humidity of about 50% RH. Three tresses of bleached European, natural brown, human hair were dampened with water and then washed with approximately 2 gm of the formulation in Examples 30 through 32 for. . . by the A/TG tensile grip of the Texture Analyser instrument and combed by raising the tensile grip to pull the hair through the fine tooth section of the comb at a rate of about 3 mm/s until the full length of. . .

CLM What is claimed is:

14. A composition comprising the polymer of claim 1, 2 or 3 further including a buffering agent, an auxiliary hair-fixative, an auxiliary film former, an auxiliary rheology modifier, an auxiliary hair conditioning agent, an auxiliary skin conditioning agent, a chemical hair waving or straightening agent, a colorant, a surfactant, a polymer film modifying agent, a product stabilizing and finishing agent, a. . .

IT 691397-13-4

(Pluronic F 127, Pluronic L 35; stable aqueous polymer compns. containing cationic associative polymer and surfactant for cosmetic and other uses)

L42 ANSWER 16 OF 39 USPATFULL on STN

ACCESSION NUMBER: 2004:226958 USPATFULL

TITLE:	Compositions for efficient release of active ingredients
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PATENT ASSIGNEE(S):	The Procter & Gamble Company (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004175343	A1	20040909
APPLICATION INFO.:	US 2004-804381	A1	20040319 (10)

RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-466343, filed on 17 Dec 1999, GRANTED, Pat. No. US 6716441
DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224
NUMBER OF CLAIMS:	20
EXEMPLARY CLAIM:	1
LINE COUNT:	1434

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a novel composition for efficiently releasing hydrophilic or water-soluble skin care actives from an oleaginous composition. The substantially oleaginous composition of the present invention comprises: (1) at least one skin care active; (2) a release agent having an HLB of at least about 3; and (3) a hydrophobic barrier protectant. The novel release composition may be topically applied to skin using a dispensing means such as an absorbent article, a wipe, a bandage, a pad, a canister, a stick, an. . .

SUMM [0002] The present invention relates to the effective delivery of a therapeutic skin care active to the skin via a novel release composition which is preferably incorporated into a dispensing means. Many types of disposable absorbent articles, such. . . efficient for the absorption of liquids, they also create a more hostile environment than that is usually encountered by the skin, increasing the risk of skin irritations and/or diaper dermatitis. Diaper dermatitis or diaper rash is a condition where the stratum corneum is attacked and the skin is irritated and inflamed. The commonly known factors linked to diaper dermatitis include ammonia, bacteria, the products of bacterial actions, enzymes, pH, candida albicans and moisture. The diaper dermatitis is principally initiated by prolonged and repeated exposure to urine and feces under occlusive condition such as the micro-environment created by wearing an absorbent article. Under such condition, the skin may get overhydrated, leading to diminished barrier function. The friction and rubbing with the absorbent article create further damages to the skin. Thus, the skin becomes more susceptible to the irritants such as those in the urine or feces. While this condition is certainly more. . . in infants, it is not limited to infants. Similar conditions occur in, for example, incontinent or bed-ridden adults. Furthermore, similar skin irritation may occur from use of sanitary napkins and from repeated wiping/chaffing of sensitive skin.

SUMM . . . factors linked to diaper dermatitis, the practical approach

attempts to address the multiple causes and/or important cofactors. For example, reducing skin hydration by frequent changing of diapers, the use of moisture absorbing powders, the use of superabsorbent materials, and improving air. . .

SUMM [0004] Typically, a topical cream, ointment, lotion or paste is applied to the skin under the absorbent article by hand to provide some degree of physical barrier protection against bodily exudates or irritants. For the topical application method to be effective, the creams or ointments need to be substantive, i.e., they need to coat the target surface and remain at the site of application. Most current topical delivery systems are O/W or W/O (oil in water or water in oil) emulsions. These emulsions generally have inferior substantive. . . and often fail to provide long-lasting benefits to the site of application. These water-containing emulsions are particularly unsuitable for overhydrated skin such as is under an absorbent article. Water-free creams or ointments are also known. Typically, these creams or ointments use. . .

SUMM . . . ingredients have been incorporated into topically applied compositions to treat or prevent diaper rash caused by the prolonged contact of skin with bodily exudates. For example, to combat the irritants and protect or enhance the skin's barrier properties, a host of cosmetic or therapeutic skin care actives can be incorporated into a carrier and applied to the skin, either by hand or via a dispensing means. These active ingredients include barrier substances (such as zinc oxide), skin conditioning agents (such as lanolin), pH buffer substances, protease and/or enzyme inhibitors, and other active ingredients. Because these active ingredients. . . continuously delivered. However, they may not be efficient in delivering the active ingredients. This is so because many of the skin care actives are water-soluble or hydrophilic; thus, they exist as solid particles or powders in the oleaginous composition. These solid. . . powders are entrapped in the substantially anhydrous oleaginous base and cannot be easily released from the composition to the target skin surface. Moreover, even when these active ingredients are in contact with the target skin surface, they may not function efficiently in their solid form.

SUMM [0006] Therefore, it is desirable to have a substantive, non-irritating oleaginous composition that efficiently delivers water-soluble or hydrophilic skin care actives to the skin surface in their active form, which readily provide benefits to the skin. It is further desirable to provide an oleaginous composition from which the water-soluble or hydrophilic active is released more efficiently. . .

SUMM [0007] Moreover, it is desirable that the composition provides continuous and controlled release of the water-soluble or hydrophilic skin care actives from the oleaginous carrier system.

SUMM [0008] It is further desirable that in a preferred embodiment, this novel composition can be administered to the target skin area via multiple dispensing means, such as pads, bandages, patches, sticks, aerosol dispensers, pump sprays, trigger sprays, canisters, and absorbent articles. In this embodiment, it is desirable that the novel composition can be administered to the target skin without leaving a messy aesthetically unpleasing residue on the skin and without direct contact with the users' or applicators' hands, thus avoiding leaving a messy residue on the user's hands. . .

SUMM [0009] The present invention relates to a novel composition for

efficiently releasing hydrophilic or water-soluble skin care actives from anoleaginous composition. Specifically, a hydrophilic-oleophilic release agent is incorporated into the novel composition to attract/absorb moisture which. . .

SUMM . . . into the novel composition of the present invention. The barrier protectant, which serves as a substantially anhydrous carrier for the skin care actives and the release agent, is substantive. That is, it has a good staying power on the skin surface. It thus provides a coating over the skin to protect the skin against direct contact with bodily exudates, and against penetration by moisture or irritants that may result in skin irritation, inflammation, erythema, and other undesirable side effects. The barrier protectant coating also protects the skin against overhydration. Because of the good staying power of the barrier protectant on the skin surface, it may serve as a reservoir for continuous release of the skin care actives, and provide long-lasting skin benefits.

SUMM [0011] In one embodiment, the oleaginous composition of the present invention comprises: (1) at least one water-soluble skin care active; (2) a release agent having an HLB of at least about 3, preferably a nonionic surfactant, or a. . .

SUMM [0012] The novel composition of the present invention is suitable for topical application to the target skin surface via various dispensing means, such as canisters, sticks, aerosol dispensers, and web substrates including pads, bandages, wipes, absorbent articles,. . . preferably at least semi-solid or solid at room temperature (about 20° C.); thus, it may be easily transferred to the skin via contact, shear, pressure, frictional or wear motions, body heat and combinations thereof. The semi-solid or solid consistency is also. . .

SUMM [0013] In another embodiment, the composition further comprises emollients which supple, smooth, soften, coat and lubricate the skin. The emollient may also soften the composition such that is has a semi-solid to solid consistency suitable for topical application via dispensing means.

DETD . . . or a container that incorporates the release composition, and when said web substrate or container is applied to a target skin surface, the release composition is at least partially transferable to the target skin surface via contact, shear, pressure, body heat, frictional or wear motions, and combinations thereof. The target surface may be the human skin in general, particularly the occluded human skin (i.e., skin located in areas generally under an occluded environment). Examples of appropriate dispensing means are disclosed below.

DETD [0018] As used herein the term "occluded skin" means skin located in areas generally in an occluded, and/or high humidity local environment, such as the skin under an absorbent article when the article is worn. However, the present invention is also useful for "compromised skin" which is not limited to a particular area of the body. As used herein, the term "compromised skin" means skin that has been subjected to repeated or chronic exposures, or one or more acute episodes of exposure, to bodily exudates (e.g., urine, feces, blood, sweat), moisture, irritants, etc. such that the skin develops redness, chaffing, roughness, wrinkled appearance or itchiness.

DETD [0023] The release composition of the present invention provides a means of delivering skin care actives to the skin from an oil-based composition. The release composition is uniquely suited for

releasing water-soluble actives, which generally exist as entrapped particles. . .

DETD [0024] A release composition suitable for the present invention comprises one or more skin care actives, a release agent and a barrier protectant. The composition may be solid or semi-solid, at room temperature, such. . . The composition may optionally comprise low melting emollients such that the resultant composition may become more readily transferable to the skin surface.

DETD . . . the release agent preferentially absorbs or attracts moisture to create a microenvironment within the substantially oleaginous composition such that the skin care actives, specifically the water-soluble ones, are at least partially solubilized. As such, the solubilized actives are preferentially released from the oleaginous matrix to the skin surface. Moreover, with more efficient release of the skin care active through the use of release agent, a lower concentration of actives is needed to achieve the desired skin care benefits. The preferential release coupled with the delivery of the skin care actives in their active form provide a surprisingly effective means of administering the actives such that a very small. . . amount (at a level as low as 10.sup.-4 wt %) of actives in the composition is sufficient to achieve observable skin benefits.

DETD . . . the release agent to attract or absorb moisture, the release composition also comprises an effective barrier protectant to protect the skin from overhydration as well as direct contact with irritants such as urine, feces, blood, and the like. Overall, the composition. . . the moisture being drawn into the oleaginous release composition for preferential release of the actives, and the protection exposure of skin susceptible to overhydration problem, e.g., the occluded skin under an absorbent article. The barrier protectants useful herein are substantive. That is, when the release composition is applied to the skin, it remains on the skin surface as a long-lasting coating such that the barrier protectant and other chemicals in the compositions do not penetrate the surface layer of the skin and possibly cause irritation to the skin. Additionally, the long-lasting coating functions like a reservoir from which the skin care actives may be continuously released.

DETD . . . or solid at room temperature, and it should have the melting/rheological profile such that it is readily transferable to the skin via contact, shear, pressure, frictional or wear motions, body heat and combinations thereof. It is found that emollients can optionally. . .

DETD [0029] a. The Skin Care Actives

DETD [0030] A wide variety of topically effective skin care actives can be incorporated into the release compositions of the present invention.

DETD [0031] The skin care actives suitable for use in the present invention are hydrophilic or water-soluble The term "water-soluble" as used herein means the skin care active has a solubility of at least 0.1 gram, preferably at least 1 gram, more preferably at least 3. . . .

DETD [0032] Skin care actives suitable for use herein include, but are not limited to skin conditioning agents, pH control agents, protease and/or enzyme inhibitors, anti-coenzymes, chelating agents, antibodies, antimicrobials, humectants, vitamins, skin protectants and/or skin soothing agents which meet the

requisite aforementioned solubility in water.

DETD [0033] Examples of suitable skin protectants include but are not limited to allantoin, aluminum hydroxide gel, calamine, cysteine hydrochloride, dexpanthenol, racemic methionine, sodium bicarbonate, and. . . derivatives, benzamidine and its salts and derivatives, and guanadinobenzoic acid and its salts and derivatives. Additionally, other nonlimiting examples of skin care actives useful herein are those water soluble skin care actives described in co-pending U.S. application Ser. No. 09/041,509, by McOsker et al. filed on Mar. 12, 1998; U.S.. . .

DETD [0034] The skin care actives in the present invention should preferably include at least one of the following: allantoin, hexamidine and its salts. . .

DETD [0035] The skin care actives are typically incorporated into the substantially oleaginous composition as micronized powder; conventional size particulates are less preferred due to the abrasive effect on the skin. As used herein, the "micronized powder" refers to particles having sizes (mean particle diameter and particle size distribution) that are below the tactile threshold and are essentially nonabrasive to the skin, and the "conventional size particles" refers to particles that are tactilely perceptible and provide the scrubbing and abrasive effects. Moreover,. . .

DETD [0036] Alternatively, the skin care actives may be solubilized in a small amount of water or water-miscible solvents such as lower alcohols, or glycols. . . solution, a suspension, a dispersion, an emulsion or the like, which is incorporated into the substantially oleaginous composition. Additionally, the skin care actives may also be incorporated in another structure that in turn is incorporated into the composition during manufacture or assembly. For example, the skin care active may be coated onto or otherwise attached or bound to a nanophase particulate structure or other solid support. . . contained in pressure-rupturable or dissolvable microcapsules and the like. The use of other types of incorporatable elements for containing the skin care actives and methods for their incorporation will be readily apparent to one skilled in the art.

DETD [0040] In the absence of the release agent, the skin care actives are dispersed and entrapped in the oleaginous composition with little mobility. Application of pressure or shear action may allow the skin care actives to be released from the composition. Additionally, body heat may lower the viscosity of the composition which facilitates the diffusion of the skin care actives and effectuatees their release from the oleaginous composition. It is found surprisingly that by incorporating the release agent into the composition, the skin care actives are more efficiently released to the skin when the compositions exposed to even a small amount of moisture. Not intending to be bound by theory, it is. . . the release agent provides means to microemulsify the composition, and the emulsified composition has a lower viscosity and allows the skin care actives to diffuse more rapidly through the emulsified composition to the surface of the skin. It is also believed that the emulsified composition is more spreadable such that the emulsified composition may deposit a thinner film over the skin surface and render the skin care actives more accessible.

DETD [0041] The release agents should also be mild and non-irritating to the skin. It is found that release agents having longer carbon chains are preferred. The long chain molecules tend to coat and form a thin film on the skin surface that do not penetrate into the

stratum corneum layer. As such, they are less likely to cause irritations to the skin. They may also function as a protective coating or film on the skin surface that prevents other irritants from direct contact with the skin. Furthermore, since the long chain molecules are relatively wash and sweat resistant, they are long-lasting on the skin surface, thereby enabling a long-lasting and continual delivery of the skin care actives to the skin and achieving greater skin benefits.

DETD . . . 1984, which is incorporated herein by reference. Nonionic surfactants are preferred because they are comparatively mild and non-irritating to the skin, as opposed to many cationic, anionic or amphoteric surfactants.

DETD . . . and improved miscibility with the oleaginous components of the composition, relative to conventional surfactants having C14-C22 chains typically used in skin care compositions. The long alkyl chain is particularly useful in the manufacture of oil or wax based compositions, which must. . .

DETD [0059] A barrier protectant in the release composition topically applied to the skin should be effective for protecting against direct contact between skin and body exudates or other irritants. An effective barrier protectant material spreads easily on the skin surface to provide extensive coverage. As such, it is a physical barrier against moisture and irritants penetration into the skin. It should be long-lasting (i.e., substantive) and mild to the skin . It should preferably be breathable (i.e., vapor permeable but water non-permeable). The barrier protectant also may function as the main. . . composition of the present invention achieves a balance between the moisture-absorbing release agents and the lipophilic barrier protectants for optimal skin benefit, especially for occluded skins.

DETD . . . Moreover, the barrier protectants preferably are long chain, high molecular weight molecules for other advantages, such as long-lasting on the skin surface; non-penetrating hence less irritating to the skin; and higher melting such that they thicken (i.e., increase the viscosity of) the composition to immobilize or retain the composition. . .

DETD . . . Paraffin waxes are typically linear alkanes (i.e., saturated hydrocarbons) having about 16-50 carbons. The most commonly used paraffin wax in skin care compositions is petrolatum (also known as "mineral wax," "petroleum jelly" and "mineral jelly"). Petrolatum usually refers to the viscous. . .

DETD . . . lanolin derivatives) are listed in the U.S. Food and Drug Administration's Monographed Materials List, and are generally considered safe for topical applications.

DETD . . . these release composition may not be readily transferable, i.e., fail to transfer an effective amount of the composition to the skin or satisfactory transfer may require excessive force and/or prolonged contact with skin surface to warm up the composition. It is found that emollients, especially the low melting or low viscosity ones, can be successfully blended with the other components to achieve the desired rheological properties for transfer ability to the skin and immobilization/retention within the dispensing means.

DETD . . . "emollient" is a material that protects against wetness or irritation, softens, soothes, supples, coats, lubricates, moisturizes, protects and/or cleanses the skin. In addition to providing skin protection and/or therapeutic benefits, emollients may act

as the main carrier for other components of the present invention. Emollients useful. . .

DETD . . . as stearic (C18) chain; other fatty esters of polyhydroxy alcohols, such as mono-, di- and tri-glycerides; any of the monographed skin care actives listed hereinafter; or mixtures of these emollients.

DETD [0081] Depending on the skin condition to be treated, humectants may be included in the skin care compositions. A humectant is a type of moisturizing emollient which attracts moisture from the surrounding atmosphere and enhances water absorption of the stratum corneum (i.e., the outer, corny layer of the skin). Nonlimiting examples of humectants useful herein include glycerin and derivatives thereof, such as glycerides, including monoglycerides, diglycerides, triglycerides and mixtures. . .

DETD . . . that can be included in the composition will depend on a variety of factors, including the particular emollient involved, the skin benefits desired, the other components in the composition, the desired hardness or viscosity of the composition, and like factors. It. . .

DETD . . . present in emulsions, creams, ointment, lotions, suspensions, etc. of this type. These components include water, other surfactants, emulsifiers other than skin care agents (i.e., non-water-soluble ones), humectants, skin soothing agents, anti-oxidants, viscosity modifiers, suspending agents, preservatives, sequestering agents, anti-irritants, pH buffering systems, disinfectants, antibacterial actives, antiviral agents, antifungal. . .

DETD [0085] Other skin care active ingredients having limited water solubility (i.e., a water solubility of less than 0.1 gram per 100 grams of water) may also be incorporated in the skin care composition for use herein. Such materials include Monographed materials that are deemed safe for use on human skin by the U.S. Food and Drug Administration (FDA) under 21 C.F.R. .sctn.347, such as talc, topical starch, zinc oxide, zinc acetate, zinc carbonate, and the like, kaolin, live yeast cell derivatives, microporous cellulose, cholecalciferol, colloidal oatmeal,. . . methionine, Vitamin A, and the like, and sodium bicarbonate (which is water soluble). These materials are known to provide multiple skin benefits, such as skin protectant, itch prevention, irritation prevention, via various mechanisms. It will be recognized that several of the these materials are also considered "barrier protectants" as defined herein. Other limited or non-water soluble skin care actives may include, but are not limited to, skin soothing agents derived from botanical extracts, marine sources, mineral sources, and the like, such as aloe vera, chamomile, calendula, comfrey,. . .

DETD [0086] Suitable rheological agents such as suspending agents or viscosity modifiers, may be need for dispersing and suspending the skin care agents in the compositions. Some of the suspending agents may also function as viscosity enhancing agents. Nonlimiting examples of. . .

DETD [0087] A preservative will also be needed to prevent bacterial growth and odors thereof, particularly in water-based skin care compositions. Suitable preservatives include propyl paraben, methyl paraben, benzyl alcohol, benzalkonium chloride, triclosan, tribasic calcium phosphate, β-hydroxy terephthalate (BHT),. . .

DETD . . . apparent to those skilled in the art that directly or indirectly facilitates the transfer of the release composition,

particularly the skin care active, to the skin to protect against irritation due to urine, feces and the like. Exemplary dispensing means include, a web material or a. . .

DETD . . . bowel movements (e.g., bowel movement "pockets"), and the like. Preferably the dispensing means is positioned in proximity to the wearer's skin and, more preferably is a component having a wearer-contacting surface such as the topsheet, side panels, leg cuffs, waist region,. . . Nomura et al. on Mar. 3, 1992, the disclosure of each of which is incorporated herein by reference. Exemplary feminine hygiene articles are disclosed in U.S. Pat. No. 4,556,146, issued to Swanson et al. on Dec. 3, 1985, U.S. Pat. No.. . . . Noel, et al., the disclosure of each of these references is incorporated herein. Exemplary apertured formed film preferred in feminine hygiene articles are disclosed in U.S. Pat. 3,929,135 (Thompson), issued Dec. 30, 1975; U.S. Pat. No. 4,324,246 (Mullane, et al.), issued. . .

DETD . . . nonlimiting examples of dispensing means suitable for use herein include: pressure-rupturable or dissolvable microcapsules that are induced to express the skin care active or skin care active composition upon dissolving due to contact with moisture from urine, feces, and the like or rupturing due to. . . rupturing by a user prior to applying the article to a wearer. Examples of pressure-rupturable microcapsules suitable for containing the skin care active are described in U.S. Pat. No. 3,585,998. Such microcapsules may be present in any portion of the absorbent. . . moisture is described in U.S. Pat. No. 4,790,836 and would be a suitable material for use in microcapsules containing the skin care active in any form such as a powder, particulate, liquid or semi-solid. U.S. Pat. No. 4,623,339 describes an insertable. . .

DETD [0096] The release composition of the present invention may be manufactured by combining and mixing all the components, including skin care actives, release agents, barrier protectants, and optionally the emollients and other components, such as rheological agents, using techniques generally. . . softening or melting temperature of the highest melting component is preferred so that a uniform dispersion of the components, particularly skin care active particles, can be easily achieved. Typically, the composition is heated to a temperature in the range from about. . . 120° C., more preferably from about 60 C. to about 100 C., prior to being applied to the article. The skin care active ingredients may be added to the composition prior to or after heating. When the actives are in the. . .

DETD . . . perviousness of the topsheet, the tackiness of the adhesive, and the like). The dispensing means may contain and/or deliver the skin care active ingredient in any form, such as its neat form, including powder, flake or particulate form, or in the. . .

DETD . . . will be readily apparent to those skilled in the art. For example, the release composition can be applied, to the skin contacting surface of an absorbent article or components thereof, such as a topsheet, a backsheet, elasticized leg cuffs, an elasticized. . .

DETD [0100] Where the release composition is applied to the skin via an absorbent article, the release composition should preferably have a melting/rheological profile as follows: the composition should preferably be. . . adverse effects to the absorbency of the article are minimized; the preferred composition should also be readily transferable to the skin by contact, normal wear motions, body heat, and the like. Therefore, the skin care composition is preferably plastic or fluid at skin temperature (i.e., about

34-36° C.) to facilitate the transfer to the skin, and the preferred composition should have storage stability, typically up to at least about 45° C. More detailed description of. . .

DETD . . . on the surface of the treated area, relatively small amounts of composition are needed to transfer from the article to skin and to deliver an effective amount of the active. It is believed that the ability to use low levels to impart the desired skin benefits is due to the fact that the composition is continuously, automatically delivered as articles are worn. Surprisingly, while the. . . composition is applied), during wear of the article, the composition is transferred to the wearer even in regions of the skin corresponding to untreated regions within the topsheet or other components. The amount and uniformity of composition transferred to the skin is believed to depend on several factors, including, for example, application pattern of the skin care composition, contact of the wearer's skin to the treated article surface, tackiness of the composition, friction created during wear time between the wearer's skin and the treated region, warmth generated from wearer to enhance the transfer of the composition.

DETD Method of Improving The Skin Condition

DETD . . . every change or intermittently with sufficient frequency so as to maintain a small amount of the release composition on the skin. The active is released from the composition while the article is in contact with the subject's skin. The release is enhanced by exposing the composition to moisture in the surrounding. No other intervention, such as skin protective, moisture repellent, and/or pharmaceutical products, is applied to the skin during this period. At the end of the 4 day period, the skin in the general area contacted by the lotion-treated portion of the article shows visible improvement, such as reduction in redness.

CLM What is claimed is:

. . . release composition comprising: (1) from about 10.sup.-4% to about 20%, by weight of the release composition, of at least one skin care active, said skin care active comprising chitosan; (2) from about 0.1% to about 60%, by weight of the release composition, of a release. . . protectant; wherein the release composition is semi-solid or solid at 20° C. and at least partially transferable to a target skin surface.

2. The release composition of claim 1 wherein the skin care active has a water solubility of at least 0.1 grams of skin care active per 100 grams of water at 25° C.

3. The release composition of claim 1 wherein the skin care active is selected from the group consisting of skin protectants, protease inhibitors, chelating agents, pH control agents, anti-microbial agents, antibiotics, vitamins and mixtures thereof.

4. The release composition of claim 3 wherein the skin care active further comprises ingredients selected from the group consisting of hexamidine and its salts and derivatives, such as hexamidine. . . 13. The release composition of claim 1 further comprising limited water soluble skin care actives selected form the group consisting of talc, topical starch, zinc oxide, zinc acetate, zinc carbonate, and the like, kaolin, live yeast cell derivatives, microporous cellulose, colloidal oatmeal, cholecalciferol,. . .

. . . release composition comprising: (1) from about 10.sup.-4% to about

20%, by weight of the release composition, of at least one skin care active, said skin care active comprising chitosan; (2) from about 0.1% to about 60%, by weight of the release composition, of a release. . . protectant; wherein the release composition is semi-solid or solid at 20° C. and at least partially transferable to a wearer's skin.

17. A method for effectively delivering one or more skin care actives to skin, comprising: (a) applying to the skin an article comprising a dispensing means and a release composition disposed on at least a portion of the dispensing means; (b) transferring at least a portion of the release composition to the skin; (c) exposing the release composition to moisture; and (d) releasing one or more skin care active ingredients from the release composition; wherein the release composition is semi-solid or solid at 20° C. and comprises: (1) from about 10.sup.-4% to about 20%, by weight of the release composition, of at least one skin care active, said skin care active comprising chitosan; (2) from about 0.1% to about 60%, by weight of the release composition, of a release. . .

19. The method of claim 17 wherein the skin care active further comprises ingredients selected from the group consisting of hexamidine and its salts and derivatives, such as hexamidine. . .

IT 50-70-4, Sorbitol, biological studies 52-89-1, Cysteine hydrochloride 55-56-1, Chlorhexidine 56-81-5, 1,2,3-Propanetriol, biological studies 57-55-6, 1,2-Propanediol, biological studies 58-95-7, Vitamin e acetate 60-00-4, Edta, biological studies 63-68-3, Methionine, biological studies 67-97-0, Cholecalciferol 79-83-4, Vitamin b5 81-13-0, Dexpanthenol 83-86-3, Phytic acid 83-86-3D, Phytic acid, salts 100-33-4, Pentamidine 100-33-4D, Pentamidine, salts 102-76-1, Triacetin 112-27-6, Triethylene glycol 117-39-5, Quercetin 139-12-8, Aluminum acetate 139-44-6, Trihydroxystearin 144-55-8, Sodium bicarbonate, biological studies 402-71-1, Tpck 471-53-4, 18β-Glycyrrhetinic acid 546-88-3, Acetohydroxamic acid 557-34-6, Zinc acetate 618-39-3, Benzamidine 618-39-3D, Benzamidine, salts 1197-18-8, Tranexamic acid 1197-18-8D, Tranexamic acid, salts 1314-13-2, Zinc oxide, biological studies 1405-86-3 1405-86-3D, Glycyrrhizic acid, salts 1406-18-4, Vitamin e 2817-45-0, Phosphoramidic acid 2817-45-0D, Phosphoramidic acid, derivs. 3486-35-9, Zinc carbonate 3811-75-4, Hexamidine 3811-75-4D, salts 3858-83-1, p-Aminobenzamidine 3858-83-1D, p-Aminobenzamidine, salts 5579-81-7, Aldioxa 8001-27-2, Hirudin 8011-96-9, Calamine 9000-94-6, Antithrombin III 9004-34-6, Cellulose, biological studies 9005-25-8, Starch, biological studies 9006-65-9, Dimethicone 9076-44-2, Chymostatin 9078-38-0, Soy bean trypsin inhibitor 9087-70-1, Pancreatic trypsin inhibitor 11041-12-6, Cholestyramine 11103-57-4, Vitamin a 13832-70-7, Stearylglycyrrhetinate 14807-96-6, Talc, biological studies 16060-65-4, p-Guanidinobenzoic acid 16060-65-4D, p-Guanidinobenzoic acid, salts 21645-51-2, Aluminum hydroxide, biological studies 25322-68-3 30827-99-7 37205-61-1, Protease inhibitor 37330-34-0, Bowman-birk inhibitor 37691-11-5, Antipain 55123-66-5, Leupeptin 55123-66-5D, Leupeptin, analogs 56180-94-0, Acarbose 58970-76-6, Bestatin 58970-76-6D, Bestatin, analogs 67655-93-0, Esterastin 72432-03-2, Miglitol 76808-15-6, Ebelactone b 76808-16-7, Ebelactone a 80879-63-6, Emiglitate 81989-95-9, Cystatin 83480-29-9, Voglibose 83654-05-1 86596-25-0, Tendamistat 86596-26-1, Trestatin 96829-58-2, Tetrahydrolipstatin

96829-59-3, Lipstatin 106392-12-5, Ethylene oxide propylene oxide block copolymer 113276-96-3, Valilactone 127214-23-7, Camiglibose 128826-89-1, Salbostatin 141869-53-6, Pradimicin Q (disposable absorbent article having skin care composition containing enzyme inhibitor)

L42 ANSWER 17 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2004:189698 USPATFULL
TITLE:	Method of protecting teeth against erosion
INVENTOR(S):	Baig, Arif Ali, Mason, OH, UNITED STATES Faller, Robert Vincent, Loveland, OH, UNITED STATES White, Donald James, JR., Fairfield, OH, UNITED STATES
PATENT ASSIGNEE(S):	The Procter & Gamble Company (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004146466	A1	20040729
APPLICATION INFO.:	US 2003-737425	A1	20031216 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2002-319108, filed on 13 Dec 2002, GRANTED, Pat. No. US 6685920 Continuation-in-part of Ser. No. US 2000-710250, filed on 10 Nov 2000, GRANTED, Pat. No. US 6713049		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-165351P	19991112 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224
NUMBER OF CLAIMS:	4
EXEMPLARY CLAIM:	1
LINE COUNT:	989

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM [0003] Oral care products such as toothpastes are routinely used by consumers as part of their oral care hygiene regimens. It is well known that oral care products can provide both therapeutic and cosmetic hygiene benefits to consumers. Therapeutic benefits include caries prevention which is typically delivered through the use of various fluoride salts; gingivitis. . .

SUMM . . . by the action of chemicals, such as harsh abrasives and acids, as opposed to subsurface demineralization or caries caused by bacterial action. Dental erosion is a condition that does not involve plaque bacteria and is therefore distinct from dental caries, which is a disease caused by acids generated by plaque bacteria. Dental erosion may be caused by extrinsic or intrinsic factors. Extrinsic erosion is the result of oral consumption of dietary. . .

DETD . . . oral activity. The oral composition of the present invention may be in the form of a toothpaste, dentifrice, tooth powder, topical oral gel, mouthrinse, denture product, mouthspray, lozenge, oral tablet, or chewing gum.

DETD [0051] The present invention provides compositions in the form of toothpastes, dentifrices, tooth powder, topical oral gels, mouthrinses, denture product, mouthsprays, lozenges, oral tablets, and chewing gums. Typically these compositions will contain some thickening

material. . .
DETD [0061] The oral compositions of the present invention are in the form of toothpastes, dentifrices, topical oral gels, mouthrinses, denture products, mouthsprays, lozenges, oral tablets, or chewing gums. The dentifrice compositions may be a paste, gel,. . .
DETD . . . may be by brushing with a dentifrice or rinsing with a dentifrice slurry or mouthrinse. Other methods include contacting the topical oral gel, dentures product, mouthspray, or other form with the subject's teeth and oral mucosa. The subject may be any. . .
DETD [0068] Portions of the surface of each specimen are then covered with an acid resistant nail polish (placed in a mesial-distal fashion), leaving at least one uncovered strip of tooth surface exposed for treatment. Covered portions remain covered with the acid-resistant nail polish throughout the experiment, serving as the control (untreated) areas for later microradiographic analysis.
IT 79-10-7D, Acrylic acid, esters, polymers 79-41-4D, Methacrylic acid, esters, polymers 546-46-3, Zinc Citrate 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological studies 7488-55-3, Stannous Sulfate 7631-97-2, Sodium Monofluorophosphate 7772-99-8, Stannous Chloride, biological studies 7783-47-3, Stannous Fluoride 9000-07-1, Carrageenan 9000-11-7, Carboxymethyl Cellulose 9002-89-5, Poly(vinyl alcohol) 9002-98-6 9003-05-8, Polyacrylamide 9003-20-7, Poly(vinyl acetate) 9080-67-5, Poly(vinyl benzyl chloride) 11138-66-2, Xanthan Gum 16039-53-5, Zinc Lactate 24937-72-2, Poly(maleic anhydride) 25322-68-3, Polyethylene glycol 25322-69-4, Polypropylene glycol 106392-12-5, Poloxamer 536709-46-3
(compns. containing polymers and metals for protection of teeth against erosion)

L42 ANSWER 18 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2004:184066 USPATFULL
TITLE:	Treatment of mucositis
INVENTOR(S):	Rosenthal, Gary J., Louisville, CO, UNITED STATES Etter, Jeffrey B., Boulder, CO, UNITED STATES Rodell, Timothy C., Aspen, CO, UNITED STATES Schauer, Wren H., Boulder, CO, UNITED STATES Samaniego, Adrian, Louisville, CO, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004141949	A1	20040722
APPLICATION INFO.:	US 2003-728277	A1	20031204 (10)

RELATED APPLN. INFO.:	Continuation of Ser. No. US 2001-993383, filed on 21 Nov 2001, GRANTED, Pat. No. US 6685917 Continuation-in-part of Ser. No. US 2000-721516, filed on 22 Nov 2000, ABANDONED
DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	MARSH, FISCHMANN & BREYFOGLE LLP, 3151 SOUTH VAUGHN WAY, SUITE 411, AURORA, CO, 80014
NUMBER OF CLAIMS:	132
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	1 Drawing Page(s)
LINE COUNT:	1594

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
SUMM [0003] Mucositis is a serious and often very painful disorder involving inflammation of the mucous membrane, with the

inflammation often accompanied by infection and/or ulceration. Mucositis can occur at any of the different mucosal sites in. . .

SUMM . . . the epithelial phase, is signaled by atrophy and ulceration of the mucosal epithelium. The third phase is defined as the ulcerative/ bacterial phase represented by ulcerative lesions that are prone to bacterial infection further compromising the patients' immune system. These painful lesions often limit a patient's ability to eat and drink and. . . radiation treatments. The last phase, the healing phase, is characterized by a proliferation and differentiation of epithelium as well as bacterial control.

SUMM [0006] Routine oral hygiene is extremely important in reducing the incidence and severity of mucositis. Oral hygiene methods include rinsing/irrigation and mechanical plaque removal. Although not entirely supported by controlled clinical trials, allopurinol mouthwash and vitamin E have been cited as agents that may decrease the severity of mucositis. Prophylaxis against fungal infections is commonly employed in an effort to treat oral mucositis and includes use of topical antifungal agents such as nystatin-containing mouthwashes and clotrimazole troches. Although topical antifungal prophylaxis and treatment may clear superficial oropharyngeal infections, topical agents tend not to be well absorbed and have not been demonstrated to be effective against more deeply invasive fungal infections, which typically involve the esophagus and lower gastrointestinal tract. For this reason, systemic agents are indicated for treating all except superficial fungal infections in the oral cavity.

SUMM [0008] Chlorhexidine is a broad spectrum antimicrobial with activity against gram-positive and gram-negative organisms, yeast, and other fungal organisms. It also has the desirable properties of sustained binding to oral surfaces and minimal gastrointestinal (GI) absorption, thereby limiting. . .

DETD . . . or prolonged and sustained action, of the oral mucositis therapeutic, thereby improving the efficacy of the oral mucositis therapeutic upon topical application to mucosal surfaces, a route that may otherwise be an ineffective means of therapy. Furthermore, the delivery system may. . .

DETD . . . be stable under the conditions of manufacture and storage and preferably preserved against the contaminating action of microorganisms such as bacteria and fungi. The carrier liquid can be a solvent of dispersion medium containing, for example, water, ethanol, polyol (e.g., glycerol, propylene glycol,. . .

IT 69-72-7D, derivs. 70-18-8, Glutathione, biological studies 77-92-9, Citric acid, biological studies 532-32-1, Sodium benzoate 541-15-1D, Carnitine, acyl derivs. 629-25-4, Sodium laurate 638-23-3 1002-62-6, Sodium caprate 1115-84-0, Methylmethionine sulfonium chloride 1984-06-1, Sodium caprylate 2508-76-1, Sodium glycyrrhetinate 7421-40-1, Glycyrrhetinic acid hydrogen succinate disodium salt 9004-34-6D, Cellulose, derivs. 9012-76-4, Chitosan 9012-76-4D, Chitosan, derivs. 19045-66-0D, Thiocarbamic acid, derivs. 68797-35-3, Dipotassium glycyrrhizinate 106392-12-5, Poloxamer (treatment of mucositis)

L42 ANSWER 19 OF 39 USPATFULL on STN
ACCESSION NUMBER: 2004:85114 USPATFULL
TITLE: Compositions for efficient release of active ingredients
INVENTOR(S): Osborne, Scott Edward, Middletown, OH, United States

Deckner, George Endel, Cincinnati, OH, United States
Klofta, Thomas James, Cincinnati, OH, United States
Vega, Victor Nicholas, Cincinnati, OH, United States
PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6716441	B1	20040406
APPLICATION INFO.:	US 1999-466343		19991217 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1998-41266, filed on 3 Mar 1998, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Page, Thurman K.
ASSISTANT EXAMINER: Channavajjala, Lakshmi
LEGAL REPRESENTATIVE: Wei-Berk, Caroline H., Hughett, Eileen L., Addington, Eric T.
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT: 1434
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a novel composition for efficiently releasing hydrophilic or water-soluble skin care actives from an oleaginous composition. The substantially oleaginous composition of the present invention comprises: (1) at least one skin care active; (2) a release agent having an HLB of at least about 3; and (3) a hydrophobic barrier protectant. The novel release composition may be topically applied to skin using a dispensing means such as an absorbent article, a wipe, a bandage, a pad, a canister, a stick, an. . .

SUMM The present invention relates to the effective delivery of a therapeutic skin care active to the skin via a novel release composition which is preferably incorporated into a dispensing means. Many types of disposable absorbent articles, such. . . efficient for the absorption of liquids, they also create a more hostile environment than that is usually encountered by the skin, increasing the risk of skin irritations and/or diaper dermatitis. Diaper dermatitis or diaper rash is a condition where the stratum corneum is attacked and the skin is irritated and inflamed. The commonly known factors linked to diaper dermatitis include ammonia, bacteria, the products of bacterial actions, enzymes, pH, candida albicans and moisture. The diaper dermatitis is principally initiated by prolonged and repeated exposure to urine and feces under occlusive condition such as the micro-environment created by wearing an absorbent article. Under such condition, the skin may get overhydrated, leading to diminished barrier function. The friction and rubbing with the absorbent article create further damages to the skin. Thus, the skin becomes more susceptible to the irritants such as those in the urine or feces. While this condition is certainly more. . . in infants, it is not limited to infants. Similar conditions occur in, for example, incontinent or bed-ridden adults. Furthermore, similar skin irritation may occur from use of sanitary napkins and from repeated wiping/chaffing of sensitive skin.

SUMM . . . factors linked to diaper dermatitis, the practical approach

attempts to address the multiple causes and/or important cofactors. For example, reducing skin hydration by frequent changing of diapers, the use of moisture absorbing powders, the use of superabsorbent materials, and improving air. . .

SUMM Typically, a topical cream, ointment, lotion or paste is applied to the skin under the absorbent article by hand to provide some degree of physical barrier protection against bodily exudates or irritants. For the topical application method to be effective, the creams or ointments need to be substantive, i.e., they need to coat the target surface and remain at the site of application. Most current topical delivery systems are O/W or W/O (oil in water or water in oil) emulsions. These emulsions generally have inferior substantive. . . and often fail to provide long-lasting benefits to the site of application. These water-containing emulsions are particularly unsuitable for overhydrated skin such as is under an absorbent article. Water-free creams or ointments are also known. Typically, these creams or ointments use. . .

SUMM . . . ingredients have been incorporated into topically applied compositions to treat or prevent diaper rash caused by the prolonged contact of skin with bodily exudates. For example, to combat the irritants and protect or enhance the skin's barrier properties, a host of cosmetic or therapeutic skin care actives can be incorporated into a carrier and applied to the skin, either by hand or via a dispensing means. These active ingredients include barrier substances (such as zinc oxide), skin conditioning agents (such as lanolin), pH buffer substances, protease and/or enzyme inhibitors, and other active ingredients. Because these active ingredients. . . continuously delivered. However, they may not be efficient in delivering the active ingredients. This is so because many of the skin care actives are water-soluble or hydrophilic; thus, they exist as solid particles or powders in the oleaginous composition. These solid. . . powders are entrapped in the substantially anhydrous oleaginous base and cannot be easily released from the composition to the target skin surface. Moreover, even when these active ingredients are in contact with the target skin surface, they may not function efficiently in their solid form.

SUMM Therefore, it is desirable to have a substantive, non-irritating oleaginous composition that efficiently delivers water-soluble or hydrophilic skin care actives to the skin surface in their active form, which readily provide benefits to the skin. It is further desirable to provide an oleaginous composition from which the water-soluble or hydrophilic active is released more efficiently. . .

SUMM Moreover, it is desirable that the composition provides continuous and controlled release of the water-soluble or hydrophilic skin care actives from the oleaginous carrier system.

SUMM It is further desirable that in a preferred embodiment, this novel composition can be administered to the target skin area via multiple dispensing means, such as pads, bandages, patches, sticks, aerosol dispensers, pump sprays, trigger sprays, canisters, and absorbent articles. In this embodiment, it is desirable that the novel composition can be administered to the target skin without leaving a messy aesthetically unpleasing residue on the skin and without direct contact with the users' or applicators' hands, thus avoiding leaving a messy residue on the user's hands. . .

SUMM The present invention relates to a novel composition for efficiently

releasing hydrophilic or water-soluble skin care actives from anoleaginous composition. Specifically, a hydrophilic-oleophilic release agent is incorporated into the novel composition to attract/absorb moisture which. . .

SUMM . . . into the novel composition of the present invention. The barrier protectant, which serves as a substantially anhydrous carrier for the skin care actives and the release agent, is substantive. That is, it has a good staying power on the skin surface. It thus provides a coating over the skin to protect the skin against direct contact with bodily exudates, and against penetration by moisture or irritants that may result in skin irritation, inflammation, erythema, and other undesirable side effects. The barrier protectant coating also protects the skin against overhydration. Because of the good staying power of the barrier protectant on the skin surface, it may serve as a reservoir for continuous release of the skin care actives, and provide long-lasting skin benefits.

SUMM In one embodiment, the oleaginous composition of the present invention comprises: (1) at least one water-soluble skin care active; (2) a release agent having an HLB of at least about 3, preferably a nonionic surfactant, or a. . .

SUMM The novel composition of the present invention is suitable for topical application to the target skin surface via various dispensing means, such as canisters, sticks, aerosol dispensers, and web substrates including pads, bandages, wipes, absorbent articles,. . . preferably at least semi-solid or solid at room temperature (about 20° C.); thus, it may be easily transferred to the skin via contact, shear, pressure, frictional or wear motions, body heat and combinations thereof. The semi-solid or solid consistency is also. . .

SUMM In another embodiment, the composition further comprises emollients which supple, smooth, soften, coat and lubricate the skin. The emollient may also soften the composition such that is has a semi-solid to solid consistency suitable for topical application via dispensing means.

SUMM . . . or a container that incorporates the release composition, and when said web substrate or container is applied to a target skin surface, the release composition is at least partially transferable to the target skin surface via contact, shear, pressure, body heat, frictional or wear motions, and combinations thereof. The target surface may be the human skin in general, particularly the occluded human skin (i.e., skin located in areas generally under an occluded environment). Examples of appropriate dispensing means are disclosed below.

SUMM As used herein the term "occluded skin" means skin located in areas generally in an occluded, and/or high humidity local environment, such as the skin under an absorbent article when the article is worn. However, the present invention is also useful for "compromised skin" which is not limited to a particular area of the body. As used herein, the term "compromised skin" means skin that has been subjected to repeated or chronic exposures, or one or more acute episodes of exposure, to bodily exudates (e.g., urine, feces, blood, sweat), moisture, irritants, etc. such that the skin develops redness, chaffing, roughness, wrinkled appearance or itchiness.

SUMM The release composition of the present invention provides a means of delivering skin care actives to the skin from an oil-based composition. The release composition is uniquely suited for

releasing water-soluble actives, which generally exist as entrapped particles. . .

SUMM A release composition suitable for the present invention comprises one or more skin care actives, a release agent and a barrier protectant. The composition may be solid or semi-solid, at room temperature, such. . . The composition may optionally comprise low melting emollients such that the resultant composition may become more readily transferable to the skin surface.

SUMM . . . the release agent preferentially absorbs or attracts moisture to create a microenvironment within the substantially oleaginous composition such that the skin care actives, specifically the water-soluble ones, are at least partially solubilized. As such, the solubilized actives are preferentially released from the oleaginous matrix to the skin surface. Moreover, with more efficient release of the skin care active through the use of release agent, a lower concentration of actives is needed to achieve the desired skin care benefits. The preferential release coupled with the delivery of the skin care actives in their active form provide a surprisingly effective means of administering the actives such that a very small. . . amount (at a level as low as 10.sup.-4 wt %) of actives in the composition is sufficient to achieve observable skin benefits.

SUMM . . . the release agent to attract or absorb moisture, the release composition also comprises an effective barrier protectant to protect the skin from overhydration as well as direct contact with irritants such as urine, feces, blood, and the like. Overall, the composition. . . the moisture being drawn into the oleaginous release composition for preferential release of the actives, and the protection exposure of skin susceptible to overhydration problem, e.g., the occluded skin under an absorbent article. The barrier protectants useful herein are substantive. That is, when the release composition is applied to the skin, it remains on the skin surface as a long-lasting coating such that the barrier protectant and other chemicals in the compositions do not penetrate the surface layer of the skin and possibly cause irritation to the skin. Additionally, the long-lasting coating functions like a reservoir from which the skin care actives may be continuously released.

SUMM . . . or solid at room temperature, and it should have the melting/rheological profile such that it is readily transferable to the skin via contact, shear, pressure, frictional or wear motions, body heat and combinations thereof. It is found that emollients can optionally. . .

SUMM a. The Skin Care Actives

SUMM A wide variety of topically effective skin care actives can be incorporated into the release compositions of the present invention.

SUMM The skin care actives suitable for use in the present invention are hydrophilic or water-soluble. The term "water-soluble" as used herein means the skin care active has a solubility of at least 0.1 gram, preferably at least 1 gram, more preferably at least 3. . . .

SUMM Skin care actives suitable for use herein include, but are not limited to skin conditioning agents, pH control agents, protease and/or enzyme inhibitors, anti-coenzymes, chelating agents, antibodies, antimicrobials, humectants, vitamins, skin protectants and/or skin soothing agents which meet the requisite aforementioned solubility in water.

SUMM Examples of suitable skin protectants include but are not limited to allantoin, aluminum hydroxide gel, calamine, cysteine hydrochloride, dexpanthenol, racemic methionine, sodium bicarbonate, and. . . derivatives, benzamidine and its salts and derivatives, and guanadinobenzoic acid and its salts and derivatives. Additionally, other nonlimiting examples of skin care actives useful herein are those water soluble skin care actives described in co-pending U.S. application Ser. No. 09/041,509, now abandoned, by McOsker et al. filed on Mar. 12,. . .

SUMM The skin care actives in the present invention should preferably include at least one of the following: allantoin, hexamidine and its salts. . .

SUMM The skin care actives are typically incorporated into the substantially oleaginous composition as micronized powder; conventional size particulates are less preferred due to the abrasive effect on the skin. As used herein, the "micronized powder" refers to particles having sizes (mean particle diameter and particle size distribution) that are below the tactile threshold and are essentially nonabrasive to the skin, and the "conventional size particles" refers to particles that are tactilely perceptible and provide the scrubbing and abrasive effects. Moreover,. . .

SUMM Alternatively, the skin care actives may be solubilized in a small amount of water or water-miscible solvents such as lower alcohols, or glycols. . . solution, a suspension, a dispersion, an emulsion or the like, which is incorporated into the substantially oleaginous composition. Additionally, the skin care actives may also be incorporated in another structure that in turn is incorporated into the composition during manufacture or assembly. For example, the skin care active may be coated onto or otherwise attached or bound to a nanophase particulate structure or other solid support. . . contained in pressure-rupturable or dissolvable microcapsules and the like. The use of other types of incorporatable elements for containing the skin care actives and methods for their incorporation will be readily apparent to one skilled in the art.

SUMM In the absence of the release agent, the skin care actives are dispersed and entrapped in the oleaginous composition with little mobility. Application of pressure or shear action may allow the skin care actives to be released from the composition. Additionally, body heat may lower the viscosity of the composition which facilitates the diffusion of the skin care actives and effectuatees their release from the oleaginous composition. It is found surprisingly that by incorporating the release agent into the composition, the skin care actives are more efficiently released to the skin when the compositions exposed to even a small amount of moisture. Not intending to be bound by theory, it is. . . the release agent provides means to microemulsify the composition, and the emulsified composition has a lower viscosity and allows the skin care actives to diffuse more rapidly through the emulsified composition to the surface of the skin. It is also believed that the emulsified composition is more spreadable such that the emulsified composition may deposit a thinner film over the skin surface and render the skin care actives more accessible.

SUMM The release agents should also be mild and non-irritating to the skin. It is found that release agents having longer carbon chains are preferred. The long chain molecules tend to coat and form a thin film on the skin surface that do not penetrate into the stratum corneum layer. As such, they are less likely to cause

irritations to the skin. They may also function as a protective coating or film on the skin surface that prevents other irritants from direct contact with the skin. Furthermore, since the long chain molecules are relatively wash and sweat resistant, they are long-lasting on the skin surface, thereby enabling a long-lasting and continual delivery of the skin care actives to the skin and achieving greater skin benefits.

SUMM . . . 1984, which is incorporated herein by reference. Nonionic surfactants are preferred because they are comparatively mild and non-irritating to the skin, as opposed to many cationic, anionic or amphoteric surfactants.

SUMM . . . and improved miscibility with the oleaginous components of the composition, relative to conventional surfactants having C14-C22 chains typically used in skin care compositions. The long alkyl chain is particularly useful in the manufacture of oil or wax based compositions, which must. . .

SUMM A barrier protectant in the release composition topically applied to the skin should be effective for protecting against direct contact between skin and body exudates or other irritants. An effective barrier protectant material spreads easily on the skin surface to provide extensive coverage. As such, it is a physical barrier against moisture and irritants penetration into the skin. It should be long-lasting (i.e., substantive) and mild to the skin . It should preferably be breathable (i.e., vapor permeable but water non-permeable). The barrier protectant also may function as the main. . . composition of the present invention achieves a balance between the moisture-absorbing release agents and the lipophilic barrier protectants for optimal skin benefit, especially for occluded skins.

SUMM Moreover, the barrier protectants preferably are long chain, high molecular weight molecules for other advantages, such as long-lasting on the skin surface; non-penetrating hence less irritating to the skin; and higher melting such that they thicken (i.e., increase the viscosity of) the composition to immobilize or retain the composition. . .

SUMM . . . Paraffin waxes are typically linear alkanes (i.e., saturated hydrocarbons) having about 16-50 carbons. The most commonly used paraffin wax in skin care compositions is petrolatum (also known as "mineral wax," "petroleum jelly" and "mineral jelly"). Petrolatum usually refers to the viscous. . .

SUMM . . . lanolin derivatives) are listed in the U.S. Food and Drug Administration's Monographed Materials List, and are generally considered safe for topical applications.

SUMM . . . these release composition may not be readily transferable, i.e., fail to transfer an effective amount of the composition to the skin or satisfactory transfer may require excessive force and/or prolonged contact with skin surface to warm up the composition. It is found that emollients, especially the low melting or low viscosity ones, can be successfully blended with the other components to achieve the desired rheological properties for transfer ability to the skin and immobilization/retention within the dispensing means.

SUMM . . . "emollient" is a material that protects against wetness or irritation, softens, soothes, supples, coats, lubricates, moisturizes, protects and/or cleanses the skin. In addition to providing skin protection and/or therapeutic benefits, emollients may act as the main carrier for other components of the present invention.

Emollients useful. . .

SUMM . . . as stearic (C18) chain; other fatty esters of polyhydroxy alcohols, such as mono-, di- and tri-glycerides; any of the monographed skin care actives listed hereinafter; or mixtures of these emollients.

SUMM Depending on the skin condition to be treated, humectants may be included in the skin care compositions. A humectant is a type of moisturizing emollient which attracts moisture from the surrounding atmosphere and enhances water absorption of the stratum corneum (i.e., the outer, corny layer of the skin). Nonlimiting examples of humectants useful herein include glycerin and derivatives thereof, such as glycerides, including monoglycerides, diglycerides, triglycerides and mixtures. . .

SUMM . . . that can be included in the composition will depend on a variety of factors, including the particular emollient involved, the skin benefits desired, the other components in the composition, the desired hardness or viscosity of the composition, and like factors. It. . .

SUMM . . . present in emulsions, creams, ointment, lotions, suspensions, etc. of this type. These components include water, other surfactants, emulsifiers other than skin care agents (i.e., non-water-soluble ones), humectants, skin soothing agents, anti-oxidants, viscosity modifiers, suspending agents, preservatives, sequestering agents, anti-irritants, pH buffering systems, disinfectants, antibacterial actives, antiviral agents, antifungal. . .

SUMM Other skin care active ingredients having limited water solubility (i.e., a water solubility of less than 0.1 gram per 100 grams of water) may also be incorporated in the skin care composition for use herein. Such materials include Monographed materials that are deemed safe for use on human skin by the U.S. Food and Drug Administration (FDA) under 21 C.F.R. .sctn.347, such as talc, topical starch, zinc oxide, zinc acetate, zinc carbonate, and the like, kaolin, live yeast cell derivatives, microporous cellulose, cholecalciferol, colloidal oatmeal,. . . methionine, Vitamin A, and the like, and sodium bicarbonate (which is water soluble). These materials are known to provide multiple skin benefits, such as skin protectant, itch prevention, irritation prevention, via various mechanisms. It will be recognized that several of the these materials are also considered "barrier protectants" as defined herein. Other limited or non-water soluble skin care actives may include, but are not limited to, skin soothing agents derived from botanical extracts, marine sources, mineral sources, and the like, such as aloe vera, chamomile, calendula, comfrey,. . .

SUMM Suitable rheological agents such as suspending agents or viscosity modifiers, may be need for dispersing and suspending the skin care agents in the compositions. Some of the suspending agents may also function as viscosity enhancing agents. Nonlimiting examples of. . .

SUMM A preservative will also be needed to prevent bacterial growth and odors thereof, particularly in water-based skin care compositions. Suitable preservatives include propyl paraben, methyl paraben, benzyl alcohol, benzalkonium chloride, triclosan, tribasic calcium phosphate, β-hydroxy terephthalate (BHT),. . .

SUMM . . . apparent to those skilled in the art that directly or indirectly facilitates the transfer of the release composition, particularly the skin care active, to the skin to protect against irritation due to urine, feces and the like. Exemplary

dispensing means include, a web material or a. . .
SUMM . . . bowel movements (e.g., bowel movement "pockets"), and the like. Preferably the dispensing means is positioned in proximity to the wearer's skin and, more preferably is a component having a wearer-contacting surface such as the topsheet, side panels, leg cuffs, waist region,. . . Nomura et al. on Mar. 3, 1992, the disclosure of each of which is incorporated herein by reference. Exemplary feminine hygiene articles are disclosed in U.S. Pat. No. 4,556,146, issued to Swanson et al. on Dec. 3, 1985, U.S. Pat. No.. . . Noel, et al., the disclosure of each of these references is incorporated herein. Exemplary apertured formed film preferred in feminine hygiene articles are disclosed in U.S. Pat. No. 3,929,135 (Thompson), issued Dec. 30, 1975; U.S. Pat. No. 4,324,246 (Mullane, et al.),. . .
SUMM . . . nonlimiting examples of dispensing means suitable for use herein include: pressure-rupturable or dissolvable microcapsules that are induced to express the skin care active or skin care active composition upon dissolving due to contact with moisture from urine, feces, and the like or rupturing due to. . . rupturing by a user prior to applying the article to a wearer. Examples of pressure-rupturable microcapsules suitable for containing the skin care active are described in U.S. Pat. No. 3,585,998. Such microcapsules may be present in any portion of the absorbent. . . moisture is described in U.S. Pat. No. 4,790,836 and would be a suitable material for use in microcapsules containing the skin care active in any form such as a powder, particulate, liquid or semi-solid. U.S. Pat. No. 4,623,339 describes an insertable. . .
SUMM The release composition of the present invention may be manufactured by combining and mixing all the components, including skin care actives, release agents, barrier protectants, and optionally the emollients and other components, such as rheological agents, using techniques generally. . . softening or melting temperature of the highest melting component is preferred so that a uniform dispersion of the components, particularly skin care active particles, can be easily achieved. Typically, the composition is heated to a temperature in the range from about. . . 120° C., more preferably from about 60° C. to about 100° C., prior to being applied to the article. The skin care active ingredients may be added to the composition prior to or after heating. When the actives are in the. . .
SUMM . . . perviousness of the topsheet, the tackiness of the adhesive, and the like). The dispensing means may contain and/or deliver the skin care active ingredient in any form, such as its neat form, including powder, flake or particulate form, or in the. . .
SUMM . . . will be readily apparent to those skilled in the art. For example, the release composition can be applied, to the skin contacting surface of an absorbent article or components thereof, such as a topsheet, a backsheet, elasticized leg cuffs, an elasticized. . .
SUMM Where the release composition is applied to the skin via an absorbent article, the release composition should preferably have a melting/rheological profile as follows: the composition should preferably be. . . adverse effects to the absorbency of the article are minimized; the preferred composition should also be readily transferable to the skin by contact, normal wear motions, body heat, and the like. Therefore, the skin care composition is preferably plastic or fluid at skin temperature (i.e., about 34-36° C.) to facilitate the transfer to the skin, and the preferred composition should have storage stability, typically up to

at least about 45° C. More detailed description of. . .
SUMM . . . on the surface of the treated area, relatively small amounts of composition are needed to transfer from the article to skin and to deliver an effective amount of the active. It is believed that the ability to use low levels to impart the desired skin benefits is due to the fact that the composition is continuously, automatically delivered as articles are worn. Surprisingly, while the. . . composition is applied), during wear of the article, the composition is transferred to the wearer even in regions of the skin corresponding to untreated regions within the topsheet or other components. The amount and uniformity of composition transferred to the skin is believed to depend on several factors, including, for example, application pattern of the skin care composition, contact of the wearer's skin to the treated article surface, tackiness of the composition, friction created during wear time between the wearer's skin and the treated region, warmth generated from wearer to enhance the transfer of the composition.
DETD Method of Improving the Skin Condition
DETD . . . every change or intermittently with sufficient frequency so as to maintain a small amount of the release composition on the skin. The active is released from the composition while the article is in contact with the subject's skin. The release is enhanced by exposing the composition to moisture in the surrounding. No other intervention, such as skin protective, moisture repellent, and/or pharmaceutical products, is applied to the skin during this period. At the end of the 4 day period, the skin in the general area contacted by the lotion-treated portion of the article shows visible improvement, such as reduction in redness.
CLM What is claimed is:
. . . release composition comprising: (1) from about 10.sup.-4% to about 20%, by weight of the release composition, of at least one skin care active that is selected from the group consisting of hexamidine and its salts and derivatives, triacetin, phytic acid, ethylenediamine. . . a bandage, paper, fabric; wherein the release composition is substantially oleaginous and is at least partially transferable to a wearer's skin; and, wherein the release agent is substantially hydrophilic and oleophilic, has an HLB value of at least about 3 and. . .
5. The article of claim 1 wherein the skin care active has a water solubility of at least 0.1 gram of skis care active per 100 grams of water. . .
. . . petroleum based emollients, polyolpolyester, fatty acid ester emollients, vegetable oils, hydrogenated vegetable oils and waxes, humectants, fatty alcohol ethers, talc, topical starch, zinc salts, kaolin, live yeast cell derivatives, microporous cellulose, colloidal oatmeal, cholecalciferol, Peruvean balsam oil, protein hydrlysate, racemic methionine,. . .
8. A method for effectively delivering one or more skin care actives to skin, comprising: (a) applying to the skin an article comprising a dispensing means and a release composition disposed on at least a portion of the dispensing means;. . . oleaginous and comprises: (1) from about 10.sup.-4% to about 20%, by weight of the release composition, of at least one skin care active that is selected from the group consisting of hexamidine and its salts and derivatives, triacetin, phytic acid, ethylenediamine. . . non-woven substrate, a patch, a bandage, paper, fabric, (b) transferring at least a portion of the release composition to the skin; (c)

exposing the release composition, to moisture; and (d) releasing one or more skin care active ingredients from the release composition; and wherein the release agent is substantially hydrophilic and oleophilic, has an HLB. . .
. . . petroleum based emollients, polyolpolyester, fatty acid ester emollients, vegetable oils, hydrogenated vegetable oils and waxes, humectants, fatty alcohol ethers, talc, topical starch, zinc salts, kaolin, live yeast cell derivatives, microporous cellulose, colloidal oatmeal, cholecalciferol, Peruvean balsam oil, protein hydrlysate, racemic methionine,. . .
12. A method for improving the skin condition of a wearer in an area covered by a treated absorbent article, comprising: (a) applying to the wearer an. . . oleaginous and comprises: (1) from about 10.sup.-4% to about 20%, by weight of the release composition, of at least one skin care active that is selected from the group consisting of hexamidine and its salts and derivatives, triacetin, phytic acid, ethylenediamine. . . release composition to the wearer while the article is worn; (c) exposing the release composition to moisture; (d) releasing the skin care active ingredient from the release composition; and (e) repeating steps (a-d) with one or more additional treated absorbent articles with sufficient frequency to improve skin condition in the area covered by the treated absorbent article, relative to skin covered by an untreated absorbent article.

IT 50-81-7, Vitamin C, biological studies 59-51-8, Methionine 60-00-4, Ethylenediamine tetraacetic acid, biological studies 67-97-0, Cholecalciferol 81-13-0, Panthenol 83-86-3, Phytic acid 83-88-5, Vitamin B2, biological studies 98-92-0, Niacinamide 102-76-1, Triacetin 368-43-4, Phenylsulfonyl fluoride 659-40-5, Hexamidine diisethionate 3811-75-4, Hexamidine 7440-66-6D, Zinc, salts 8059-24-3, Vitamin B6 9005-25-8, Starch, biological studies 9012-76-4, Chitosan 14807-96-6, Talc, biological studies 26636-40-8, Beheneth 106392-12-5, Pluronic L43
(skin-protecting compns. to be delivered from absorbent articles)

L42 ANSWER 20 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2004:63367 USPATFULL
TITLE:	Use of compounds which make it possible to modify the physicochemical properties of the skin and/or the mucous membranes as agents preventing or reducing the adhesion of microorganisms to the latter
INVENTOR(S):	Cupferman, Sylvie, L'Hay Les Roses, FRANCE Lerebour, Geraldine, Athis-Mons, FRANCE Guillou, Veronique, Antony, FRANCE Simon, Pascal, Vitry Sur Seine, FRANCE
PATENT ASSIGNEE(S):	L'OREAL (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004047885	A1	20040311
APPLICATION INFO.:	US 2003-613723	A1	20030707 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2001-782521, filed on 14 Feb 2001, ABANDONED		

	NUMBER	DATE

PRIORITY INFORMATION: FR 2000-1841 20000215
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: NIXON & VANDERHYE, PC, 1100 N GLEBE ROAD, 8TH FLOOR, ARLINGTON, VA, 22201-4714
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
LINE COUNT: 433
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Use of compounds which make it possible to modify the physicochemical properties of the skin and/or the mucous membranes as agents preventing or reducing the adhesion of microorganisms to the latter

AB . . . effective quantity of at least one compound free of carbohydrate units, modifying the physicochemical properties of the surface of the skin and/or of the mucous membranes, so as to prevent or reduce the adhesion of microorganisms to the skin and/or the mucous membranes, chosen so that the decimal logarithm of the mean number of viable bacteria adhering to the epidermis, after a test consisting in bringing the said epidermis into contact with the test compound for. . .

SUMM . . . relates to the use of compounds which make it possible to modify the physicochemical properties of the surface of the skin and/or the mucous membranes in a cosmetic composition or for the preparation of a pharmaceutical composition as agents preventing or reducing the adhesion of microorganisms, particularly bacteria , to the skin and/or the mucous membranes.

SUMM [0002] The human skin is permanently populated by a multitude of different microorganisms (bacteria, yeasts and fungi). The resident microbial flora, which is essential for good skin health, consists mainly of staphylococci (Staphylococcus epidermis and Staphylococcus hominis), corynebacteria, propionibacteria which are Gram+ such as Propionibacterium acnes, as well as a fungal flora mainly composed of Pytosporum ovale.

SUMM [0003] Skin infections are most often due to the disruption of the ecological balance among the resident flora following colonization of the skin by pathogenic exogenous microorganisms or following abnormal proliferation of an endogenous strain. The best known pathogenic microorganisms are Pseudomonas aeruginosa. . . for small spots, folliculitis, red blotches and pruritus, Candida albicans which can cause inflammation of the corner of the lips, skin candidiasis, pruritus, folliculitis and aphtha, Staphylococcus aureus which can cause spots, folliculitis, impetigo and furuncles, and Streptococcus of group A. . .

SUMM . . . of action affecting indiscriminately the pathogenic flora and the resident flora, and the problem of the risk of appearance of bacterial resistance, as well as problems of skin tolerance (irritations, allergies and the like).

SUMM [0005] It is also known to reduce or prevent the colonization of surfaces such as the teeth, the skin and/or the mucous membranes, by pathogenic microorganisms by preventing their attachment to these supports. The compounds used as antiadhesion agents. . .

SUMM [0006] However, most carbohydrates constitute a source of carbon for bacteria and fungi. Their presence in cosmetic compositions consequently promotes microbial proliferation and requires increasing the concentration of preservatives (bactericides or bacteriostats). This. . .

SUMM . . . that a group of particular compounds, free of hydrocarbon

units, made it possible to significantly reduce microbial adherence to the skin and/or the mucous membranes and to thus prevent the proliferation of potentially pathogenic microorganisms in the absence of antibiotic, bactericidal or fungicidal agents.

SUMM . . . receptors to prevent bindings to the glycolipids of the corneocytes, act on the physicochemical properties of the surface of the skin and/or the mucous membranes, these physicochemical properties involving electrodynamic interactions due to Van der Waals forces, Lewis-type acid-base interactions and. . . .

SUMM [0009] In addition, these compounds are not bactericidal. Because of this, they do not cause undesirable side effects on the skin and/or the mucous membranes.

SUMM . . . according to the invention, when used as active ingredients, make it possible to reduce or prevent the adhesion of a microorganism whose overall surface charge is negative or positive by increasing respectively the negative or positive charge on the skin, so as to cause repulsion between the skin and/or the mucous membranes and the microorganism.

SUMM . . . the invention, when used as active ingredients, make it possible, in addition, to reduce or prevent the adhesion of a microorganism by limiting as much as possible the Van der Waals type interactions between the skin and/or the mucous membranes and the microorganism, by promoting the repulsive interactions of the Lewis acid-base type and by limiting the attractive interactions of the Lewis acid-base type between the microorganism and the skin and/or the mucous membranes.

SUMM . . . the composition containing it may be used both preventively, for its capacity to completely or partially prevent the adhesion of microorganism, and curatively for its capacity to facilitate the detachment of the microorganisms.

SUMM [0013] These compounds are chosen so that the decimal logarithm of the mean number of viable bacteria adhering to reconstructed epidermis, after a test consisting in bringing the said epidermis into contact with the test compound for. . .

SUMM [0014] The reconstructed epidermis used in the test indicated above is reconstructed human epidermis, equivalent to human skin, sold by EPISKIN.

SUMM [0015] This test makes it possible to evaluate the modifications in the physicochemical properties of the surface of the skin and/or of the mucous membranes, involving Van der Waals electrodynamic interactions, Lewis-type acid-base interactions and electrostatic interactions.

SUMM . . . effective quantity of at least one compound free of carbohydrate units, modifying the physicochemical properties of the surface of the skin and/or of the mucous membranes, so as to prevent or reduce the adhesion of microorganisms to the skin and/or the mucous membranes, chosen so that the decimal logarithm of the mean number of viable bacteria adhering to reconstructed epidermis, after a test consisting in bringing the said epidermis into contact with the test compound for. . .

SUMM . . . pharmaceutical composition, an effective quantity of compounds free of carbohydrate units modifying the physicochemical properties of the surface of the skin and/or of the mucous membranes chosen from surfactants such as disodium cocoamphodiacetate, oxyethylenated glyceryl cocoate (7 EO) such as the. . .

SUMM [0022] According to the invention, the compound(s) or the composition containing them are used for topical application to the

skin and/or the mucous membranes.

SUMM [0023] The adhesion of microorganisms to the skin and/or the mucous membranes has consequences which range from mere unpleasantness (odour, small spots and the like) to more serious. . .

SUMM [0025] In particular, the subject of the invention is the cosmetic use by topical application of at least one compound as active ingredient in a cosmetic composition intended to reduce bad body odours and/or intended for body hygiene health care.

SUMM [0026] The expression body hygiene health care is understood to mean any substance or preparation intended to be brought into contact with various superficial parts. . .

SUMM [0027] In particular, the subject of the invention is the cosmetic use by topical application of at least one compound as active ingredient in a cosmetic composition intended to combat comedones and/or dandruff.

SUMM [0028] The microbial flora of the surface of the skin is responsible for a large number of disorders.

SUMM . . . of at least one compound as active ingredient for the preparation of a pharmaceutical composition intended to be used by topical application to combat mycosis and/or acne, particularly juvenile acne.

SUMM . . . invention is also a cosmetic method for treating disorders linked to the adhesion of microorganisms consisting in applying to the skin a cosmetic composition comprising at least one compound according to the invention in a cosmetically acceptable medium.

SUMM [0033] The expression cosmetically acceptable medium is understood to mean a medium compatible with the skin, the scalp, the mucous membranes, the nails and the hair.

SUMM . . . cosmetic and pharmaceutical compositions used according to the invention may be provided in all the galenic forms normally used for topical application, in particular in the form of an aqueous, aqueous-alcoholic or oily solution, an oil-in-water or water-in-oil or multiple emulsion,. . .

SUMM [0051] They may be optionally applied to the skin in aerosol form.

SUMM [0053] They may be used as health care product, as cleansing product for the skin or the hair, as sun screen product, as make-up product such as foundations, lipsticks, mascaras, blushers, and/or as simple deodorant product.

SUMM [0056] Before bacterial adhesion, the reconstructed epidermis is brought into contact for 2 hours with 25 mg of the product to be tested at 37° C. 1 ml of bacterial suspension of Staphylococcus aureus at a concentration of 107 microorganisms/ml in Tryptone salt is then added thereto. After incubating for 24 hours at 37° C., the bacterial suspension is emptied and five rinsings are carried out with 1 ml of sterile distilled water. The epidermis, detached from. . .

SUMM [0059] A bacteria/test product mixture, in the same ratio as in the antiadhesion test is brought into contact for 24 hours at 37° C. The test may require incubation, with stirring, in order to avoid the death of the bacteria through lack of oxygen, in particular as regards fats which are not solid at room temperature. The microorganisms are counted. . .

CLM What is claimed is:

. . . effective quantity of at least one compound free of carbohydrate units, modifying the physicochemical properties of the surface of the skin and/or of the mucous membranes, so as to prevent or reduce

the adhesion of microorganisms to the skin and/or the mucous membranes, chosen so that the decimal logarithm of the mean number of viable bacteria adhering to reconstructed epidermis, after a test consisting in bringing the said epidermis into contact with the test compound for. . .

. . . at least one compound according to claim 1, characterized in that the decimal logarithm of the mean number of viable bacteria adhering to reconstructed epidermis, after a test consisting in bringing the said epidermis into contact with the test compound for. . . .

. . . according to either of claims 1 and 2, characterized in that the decimal logarithm of the mean number of viable bacteria adhering to reconstructed epidermis, after a test consisting in bringing the said epidermis into contact with the test compound for. . .

10. Method of cosmetic treatment for treating disorders linked to the adhesion of microorganisms consisting in applying to the skin and/or the mucous membranes a cosmetic composition comprising at least one compound as defined according to any one of claims. . .

11. Cosmetic use by topical application of at least one compound as defined according to any one of claims 1 to 5 in a cosmetic composition intended to reduce bad body odours and/or intended for body hygiene health care.

12. Cosmetic use by topical application of at least one compound as defined according to any one of claims 1 to 5 in a cosmetic. . .

. . . to any one of claims 1 to 5 for the preparation of a pharmaceutical composition intended to be used by topical application to combat mycosis and/or acne.

IT 106392-12-5, Poloxamer
(Lutrol F 68; cosmetic and pharmaceutical compns. for prevention and decreasing adhesion of microorganisms to skin and/or mucosal tissue)
IT 103991-94-2
(Mexanyl GP; cosmetic and pharmaceutical compns. for prevention and decreasing adhesion of microorganisms to skin and/or mucosal tissue)
IT 87-69-4D, Tartaric acid, di-C12-13-alkyl esters, biological studies 123-79-5, Dioctyl adipate 9002-92-0, Laureth 9003-05-8, Polyacrylamide 25231-21-4, Polypropylene glycol stearyl ether 31694-55-0D, cocoate esters 54111-93-2 77091-02-2 130926-64-6D, N-coco acyl derivs. 145686-34-6, Abil EM 90 161544-30-5, (Cosmacol ETI)
(cosmetic and pharmaceutical compns. for prevention and decreasing adhesion of microorganisms to skin and/or mucosal tissue)

L42 ANSWER 21 OF 39 USPATFULL on STN
ACCESSION NUMBER: 2004:44215 USPATFULL
TITLE: Method of whitening teeth
INVENTOR(S): Date, Robert Francis, Surrey, UNITED KINGDOM
Price, Samantha Jane, Middlesex, UNITED KINGDOM
White, Donald James, JR., Fairfield, OH, UNITED STATES
PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, UNITED STATES (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004033205	A1	20040219	
APPLICATION INFO.:	US 2003-641251	A1	20030814	(10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-403725P	20020815 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224	
NUMBER OF CLAIMS:	24	
EXEMPLARY CLAIM:	1	
LINE COUNT:	831	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . to provide a tooth whitening regimen, of enhanced efficacy, which encourages user compliance by fitting with the user's normal dental hygiene practise. It is yet a further object of the present invention to provide kits suitable for use with such a. . .

SUMM . . . an improved tooth whitening effect for home usage, and for a convenient extended regimen that suits the user's normal dental hygiene practise.

SUMM . . . optional agent is a chelating agent. Chelating agents are able to complex calcium found in the cell walls of the bacteria. Chelating agents can also disrupt plaque by removing calcium from the calcium bridges, which help hold this biomass intact. Preferred. . .

SUMM [0040] Another optional but preferred component of the topical , oral carriers of the whitening dentifrice is a humectant. The humectant serves to keep the dentifrice from hardening upon exposure. . .

SUMM . . . broad range of active agents may be used, subject to compatibility with the polymers and resins herein, including oral and skin care benefit agents. Suitable active agents include teeth colour modifying substances such as pigments; anti-tartar agents, such as polyphosphates; fluoride. . .

IT 124-43-6, Carbamide peroxide 563-69-9D, Carbonoperoxoic acid, salts 3313-92-6, Sodium percarbonate 7681-49-4, Sodium fluoride, biological studies 7722-84-1, Hydrogen peroxide, biological studies 7722-88-5, Tetrasodium pyrophosphate 9004-32-4, Sodium carboxymethyl cellulose 9004-34-6D, Cellulose, derivs. 21645-51-2, Aluminum hydroxide, biological studies 25322-68-3 106392-12-5, Poloxamer 407
(method of whitening teeth with whitening dentifrice and bleaching product)

L42 ANSWER 22 OF 39 USPATFULL on STN

	NUMBER	KIND	DATE
ACCESSION NUMBER:	2003:282263	USPATFULL	
TITLE:	Dental care compositions		
INVENTOR(S):	Lawlor, Thomas Mark, Ashford, UNITED KINGDOM		
PATENT ASSIGNEE(S):	The Procter & Gamble Company, Cincinnati, OH (non-U.S. corporation)		
PATENT INFORMATION:	US 2003198604	A1	20031023
	US 6685921	B2	20040203
APPLICATION INFO.:	US 2003-424640	A1	20030425 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. WO 2000-US29384, filed on 25 Oct 2000, PENDING		
DOCUMENT TYPE:	Utility		

FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224
NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1
LINE COUNT: 1276
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM [0003] Many consumers have a good understanding of the prophylactic, therapeutic and cosmetic benefits of maintaining high standards in oral hygiene. These benefits include reduction in caries, plaque, gingivitis and tartar; treating hypersensitivity; freshening breath; whitening teeth and removing stains; remineralising. . . . a wide variety of oral care products are available which, over the short term, aid the maintenance of good oral hygiene by delivering various oral care substances or actives to the soft and hard tissues of the oral cavity. In general. . . . either at-home or away from the home and/or are administered by dentists/hygienists as part of their professional routine of oral hygiene treatments. Specific examples of such products, particularly those for use by the consumer themselves, include dentifrices containing for example anti-caries actives and/or anti-bacterial plaque reducing actives; mouth washes containing breath freshening actives and/or anti-bacterial actives; and chewing gums containing tooth whitening actives.

SUMM [0004] The most frequently used oral hygiene treatments are those administered by the consumer themselves and it is usual that these are practised, in the Western world,. . . . such compositions would be especially useful in the many less well developed areas of the world where prophylactic professional dental hygiene is less commonly available.

SUMM . . . unsuitable for home use, feel unnatural and the coating itself can still be subject to the deleterious effect of plaque-causing bacteria.

SUMM . . . polysiloxane coating remains in place, it is able to act as a slow release reservoir for lipid soluble actives eg anti-bacterial agents (U.S. Pat. No. 5,422,098). However, polysiloxanes themselves adhere to the teeth for only a short period of time so. . .

SUMM . . . No. 4,902,499, WO 92/10161 and WO 92/10162 which disclose the use of silicone resin/gum/fluid blends in conjunction with surfactants as hair conditioning products; WO 00/06100, WO00/06107 which disclose the use of silicone resins in hair hold compositions; and GB 2,289,686 and U.S. Pat. No. 5,523,017 which disclose translucent silicone emulsion systems for use in personal. . .

SUMM . . . The safety of polydimethylsiloxanes or use in these various products is well documented. See Rowe et al., Journal of Industrial Hygiene, 30:332-352 (1948). See also Calandra et al., ACS Polymer Preprints, 17:1-4 (1976) and Kennedy et al., J. Toxicol. & Environmental. . .

SUMM [0071] 3. Anti-Plaque Agents Anti-plaque agents are any substances which inhibit the accumulation of bacterial deposits on the surfaces of the oral cavity. Examples include xylitol and other anti-microbial agents.

SUMM . . . are methods of preventing and, or treating primary and reoccurring squamous cell carcinoma of the oral cavity or oropharynx by topical administration to the oral cavity or oropharynx an effective amount of an NSAID.

SUMM . . . about 6 hours and most preferably about 8 hours. Compositions are then easily removed from the cavity by normal oral hygiene techniques such as brushing without damaged to the tissues of the oral cavity.

IT 87-99-0, Xylitol 3380-34-5, Triclosan 7440-66-6D, Zinc, salts 7631-86-9, Silica, biological studies 7732-18-5, Water, biological studies 7757-79-1, Potassium nitrate, biological studies 7783-47-3, Stannous fluoride 9004-34-6D, Cellulose, polymers 11138-66-2, Xanthan gum 14915-07-2, Peroxide 16984-48-8, Fluoride, biological studies 106392-12-5, Oxirane, polymer with methyloxirane, block
(dental care compns. containing polysiloxanes)

L42 ANSWER 23 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2003:243787 USPATFULL
TITLE:	Dermatological/cosmetic gels comprising at least one retinoid and benzoyl peroxide
INVENTOR(S):	Orsoni, Sandrine, Mandelieu, FRANCE Willcox, Nathalie, Le Rouret, FRANCE

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003170196	A1	20030911
APPLICATION INFO.:	US 2002-326389	A1	20021223 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	FR 2001-16747	20011221
	US 2002-351382P	20020128 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
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NUMBER OF CLAIMS:	19
EXEMPLARY CLAIM:	1
LINE COUNT:	846

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . are also conventionally combined in the treatment of dermatological diseases. Peroxides, D vitamins and retinoids are also described for the topical treatment of various pathologies associated with the skin or mucous membranes, in particular acne.

SUMM [0012] Firstly, the efficacy of benzoyl peroxide is associated with its decomposition when it is placed in contact with the skin. Specifically, it is the oxidizing properties of the free radicals produced during this decomposition that lead to the desired effect.. . .

SUMM [0023] In particular, the formulation of benzoyl peroxide and of a retinoid in gel form is advantageous for topical treatments, such as the treatment of acne, since it especially avoids a greasy feel being left on the skin.

SUMM . . . active agents, moisturizers, vitamins, essential fatty acids, sphingolipids, self-tanning compounds such as DHA, and calmants and protective agents for the skin such as allantoin. Needless to say, a person skilled in the art will take care to select this or these. . .

SUMM [0061] In particular, the invention also relates to a pharmaceutical or cosmetic composition for topical application to the

skin, the integuments or mucous membranes, in the form of an aqueous gel, characterized in that it contains, in a physiologically acceptable medium that is compatible with topical application to the skin, the integuments or mucous membranes, an active phase comprising (expressed in percentages by weight):

SUMM [0098] 5) for repairing or combating aging of the skin, whether photo induced or chronological aging, or for reducing pigmentation, or any pathology associated with chronological or actinic aging,

SUMM [0099] 6) for preventively or curatively treating cicatrization disorders and skin ulcers, for preventing or repairing stretch marks, or for promoting cicatrization,

SUMM [0101] 8) in the treatment of any complaint of fungal origin on the skin, such as tinea pedis and tinea versicolor,

SUMM [0103] 10) in the treatment of skin disorders caused by exposure to UV rays, and

SUMM [0104] 11) in the treatment of dermatological complaints associated with inflammation or infection of the tissues surrounding the hair follicles, caused especially by microbial colonization or infection, especially impetigo, seborrhoeic dermatitis, folliculitis or sycosis barbae, or involving any other bacterial or fungal agent.

SUMM [0107] The compositions according to the invention also find an application in cosmetics, in particular for treating acne-prone skin, for regrowth of the hair, for preventing hair loss, for combating the greasy appearance of the skin or the hair, in protecting against the harmful effects of sunlight or in the treatment of physiologically dry skin, or for preventing and/or combating photo induced or chronological aging.

SUMM [0108] The compositions according to the invention also find an application in body and hair hygiene.

SUMM . . . The present invention thus relates also to the cosmetic use of a composition according to the invention for treating acne-prone skin, for regrowth of the hair or for preventing hair loss, for combating the greasy appearance of the skin or the hair, in protecting against harmful effects of sunlight or in treating physiologically dry skin, or for preventing and/or controlling photo induced or chronological aging.

CLM What is claimed is:

19. A regime or regimen for treating acne-prone skin, for regrowth of the hair or for preventing hair loss, for combating the greasy appearance of the skin or the hair, in protecting against the harmful effects of sunlight or in the treatment of physiologically dry skin, or for preventing and/or combating photo induced or chronological aging, comprising administering to an individual subject in need of such. . .

IT 57-55-6, Propylene glycol, biological studies 5165-97-9D, polymer derivs. 9003-05-8, Polyacrylamide 106392-12-5, Poloxamer 124 106685-40-9, Adapalene

(cosmetic gel containing retinoid and benzoyl peroxide)

L42 ANSWER 24 OF 39 USPATFULL on STN
ACCESSION NUMBER: 2003:201723 USPATFULL
TITLE: Disposable absorbent article having a skin care composition containing an enzyme inhibitor

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	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20031397 11	A1	20030724
	US 6703536	B2	20040309
APPLICATION INFO.:	US 2002-323386	A1	20021218 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-623813, filed on 8 Sep 2000, ABANDONED Continuation-in-part of Ser. No. US 1998-41266, filed on 12 Mar 1998, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1999-US5311	19990311

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: THE PROCTER & GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER - BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224
NUMBER OF CLAIMS: 24
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 2879
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Disposable absorbent article having a skin care composition containing an enzyme inhibitor

AB An absorbent article, at least a portion of which comprises a skin care composition that comprises an enzyme inhibitor and is at least partially transferred from the article to the skin of a wearer of the article as a result of normal contact, wearer motion and/or body heat. The enzyme inhibitor is transferred to the skin with the skin care composition and is available at the skin/urine and skin/feces interfaces to inhibit enzymatic activity on the skin and to reduce or prevent the occurrence of inflammation. Repeated application of similar treated articles to the wearer's skin provides an available source with which the enzyme inhibitor transfers onto the skin continuously over time and accumulates to provide a proactive defense against harmful enzymes for the treatment and/or prevention of diaper. . .

SUMM [0002] The invention relates to absorbent articles such as diapers, training pants, adult incontinence briefs, feminine hygiene products and the like, that incorporate a skin care composition that comprises an enzyme inhibitor, preferably on a wearer-contacting surface. During normal wear of the article the enzyme inhibitor is transferred with the skin care composition to at least a portion of the wearer's skin where it is available to inactivate fecal enzymes and reduce the redness and inflammation that can occur following prolonged exposure of skin to body wastes.

SUMM . . . from newborns, to the elderly, to critically ill or nonambulatory individuals. 21 C.F.R. 333.503 defines diaper rash as "[a]n inflammatory skin condition in the diaper area (perineum, buttocks, lower abdomen, and inner thighs) caused by one or more of the following. . . is a condition which is, in its most

simple stages, a contact irritant dermatitis resulting from extended contact of the skin with urine, or feces, or both. Among the most commonly accepted factors linked to diaper rash are ammonia, fecal enzymes, bacteria, the products of bacterial action, urine pH, and Candida albicans.

SUMM . . . cannot absorb bowel movements. Typically, the bowel movement is trapped between the outer surface of the fluid-permeable topsheet and the skin of the wearer, much of it adhering to the wearer's skin. Thus the skin is exposed to contact with feces, often for long periods of time, and is susceptible to irritants present in the. . .

SUMM [0005] Because enzymes are widely distributed in plants, molds, bacteria, milk, milk products, and almost all animal tissues as well as in digestive juices in the gastrointestinal tract, they are. . . other enzymes including amylases, elastases, nucleases, and the like. Although the relative contribution of the different types of enzymes to skin irritation is unknown, there is evidence that at least fecal proteolytic and lipolytic enzymes, of intestinal and/or pancreatic origin, play a direct role in causing the skin inflammation of diaper rash.

SUMM . . . dietary triglycerides, are also found in normal stools and are capable of hydrolizing triglycerides and other glycerides found in human skin to form irritating fatty acid and glycerol by-products. Thus, when skin is exposed to enzymes such as lipases and proteases present in body exudates, lipid-containing components and protein-containing components of the skin, especially of the barrier layer (stratum corneum), can be broken down resulting in the irritation and inflammation of diaper rash. Moreover, perturbation of the skin barrier allows other components of urine and feces, ammonia, bacteria and the like which may not otherwise be irritating by themselves, to migrate through the compromised skin barrier to produce additional irritation and possible infection.

SUMM . . . available to act as coenzymes and enhance the activity of lipases that attack lipids in the stratum corneum of the skin that is exposed to body exudates.

SUMM [0008] The irritating effects of fecal enzymatic activity toward the skin are likely to be amplified if urine is present and/or if the skin is occluded. The production of ammonium hydroxide by the action of the bacterial enzyme urease on urine results in an increase in pH, for example to levels of 7.0 and above, at which. . . and for lipases 7.5-9.5. At a pH greater than 7.0, free ammonia is released from urine as a toxic additional skin irritant. Urine itself can also contribute to diaper rash by adding moisture to the diaper environment. Water, and particularly water in the form of urine, is especially effective at diminishing the barrier property of skin, thereby enhancing the susceptibility of skin to fecal enzyme irritation. Since urine and feces are commonly present in the absorbent article at the same time, and exposure to the skin for several hours is not uncommon, suitable conditions and ample time are available for this interaction and the resulting skin damage to occur. An alkaline feces pH is a further contributing factor to enhanced enzymatic activity of feces. For example,. . . .

SUMM . . . In view of the contribution of alkaline pH to enhanced fecal enzyme activity, several attempts have been made to maintain skin pH by the use of pH control agents, such as buffering agents or weak acids, in the absorbent article or as ingredients in

topically applied skin care products. It is thought that effectively maintaining skin pH in its natural acidic state (i.e., about 3.0 to about 5.5) may counteract the irritating effects of ammonia and reduce the activity of fecal enzymes. Reducing the enzymatic activity on the skin by this approach, however, is potentially difficult in the situation where feces are deposited directly on the skin following a bowel movement.

SUMM . . . been included in topically applied compositions for treatment or prevention of diaper rash caused by the prolonged contact of human skin with body wastes. For example, U.S. Pat. No. 4,556,560 describes compositions containing water-soluble lipase inhibitors that are preferably metallic salts. . . absorbent core, the lipase inhibitor is preferably in an aqueous or volatile carrier such as ethanol for transfer to the skin when the diaper is wetted with urine. U.S. Pat. No. 5,091,193 describes compositions for application to the skin at the time of diaper change that contain a chelating agent, such as phytic acid, ethylenediamine tetraacetic acid (EDTA), and. . .

SUMM . . . enzyme activity, there has been no previous description of a regimen for treatment or prevention of diaper dermatitis by which skin care compositions containing enzyme inhibitors are included in absorbent articles for automatic transfer to the skin of a wearer during normal wear of a treated article, or that the use, preferably the repeated use, of such absorbent articles automatically transfers sufficient levels of the enzyme inhibitors to selected regions of the wearer's skin to provide a defense against fecal penetration and enzymatic activity. Moreover, there has been no previous description of absorbent articles having a skin care composition containing an enzyme inhibitor immobilized (at room temperature) on a wearer-contacting surface, preferably a topsheet, wherein the skin care composition and enzyme inhibitor are transferred to the skin of the wearer when the skin care composition is warmed to body temperature.

SUMM [0012] The invention provides an absorbent article, at least a portion of which comprises a skin care composition that comprises an enzyme inhibitor, wherein the skin care composition, including the enzyme inhibitor, is at least partially transferred from the article to the skin of a wearer of the article as a result of normal contact, wearer motion and/or body heat. The enzyme inhibitor. . . and the like, and further include inactivators of bile salts which otherwise would act as cofactors for lipase activity. The skin care composition preferably comprises about 0.001% to about 50% of the enzyme inhibitor, typically about 0.01% to about 25%, more. . .

SUMM [0013] The nature of the skin care composition comprising the enzyme inhibitor may vary widely, but in one preferred embodiment is solid or semi-solid at room temperature (20° C.). In a particularly preferred embodiment, the skin care composition will further comprise about 5% to about 95% of an emollient having a plastic or fluid consistency at 20° C. Most preferably, the skin care composition further comprises about 5% to about 95% of an agent that is capable of immobilizing the emollient in. . . that has a melting point of at least about 35° C. Preferably, the portion of the absorbent article incorporating the skin care composition comprising the enzyme inhibitor is a wearer-contacting surface, which is more preferably a liquid pervious topsheet.

SUMM [0014] Since the enzyme inhibitor is transferred to the skin with the skin care composition, the inhibitor is available at

the skin/urine and skin/feces interfaces to inhibit enzymatic activity on the skin and reduce or prevent the occurrence of inflammation. Repeated application of similar treated articles to the wearer's skin provides an available source with which the enzyme inhibitor transfers onto the skin continuously over time and accumulates to provide a proactive defense against harmful enzymes for the treatment and/or prevention of diaper. . . .

DRWD [0016] FIG. 2 is a side view showing placement of a skin analog used in the skin care composition transfer test and/or the enzyme inhibitor transfer test.

DRWD [0017] FIG. 3 is a plan view showing placement of the skin analog used in the skin care composition transfer test and/or the enzyme inhibitor transfer test.

DETD [0020] As used herein, the term "treated article" means an absorbent article having a skin care composition on or migratable to at least one wearer-contacting surface of that article.

DETD [0022] As used herein, the term "skin care composition" refers to any composition containing an enzyme inhibitor which is transferred to the skin of a wearer of a treated article as a result of normal contact, wearer motion and/or body heat when the. . .

DETD . . . weight cannot be determined, such materials will typically reduce enzyme activity by at least 50% at a concentration in the skin care composition of not more than about 5 percent by weight. Representative methods for measuring enzyme inhibitory activity are discussed. . .

DETD [0029] Without limitation, any type of enzyme inhibitor may be employed in the skin care compositions transferable to the wearer's skin from the absorbent articles of the present invention, including any naturally occurring inhibitor of plant, microbial and/or animal origin (including. . . and may thus be water soluble or soluble in a hydrophobic vehicle. The enzyme inhibitors are preferably present in the skin care composition in a concentration of about 0.001% to about 50% by weight, typically about 0.01% to about 25%, more. . .

DETD . . . inhibitors such as a "cocktail" of inhibitors in a single absorbent article. Moreover, different enzyme inhibitors may be employed in skin care compositions in different locations in a single absorbent article.

DETD [0032] Inhibitors of enzymes and/or coenzymes most frequently found in feces or other body exudates are preferred in the skin care compositions in the invention absorbent articles. Thus, the enzyme inhibitors are preferably inhibitors of proteolytic enzymes such as trypsin,. . .

DETD [0045] for preparation of a composition for treatment, prevention or reduction of lipolytic dermatitis of the external skin, wherein R.sub.1, R.sub.2, R.sub.3 and R.sub.4 are independently a C.sub.1-C.sub.22 alkyl, alkenyl, aryl, arylalkyl, amidoalkyl, (poly) alkoxy, hydroxyalkyl, or acyl. . .

DETD . . . p-guanidinobenzoic acid, especially esters of p-guanidinobenzoic acid, have been described as inhibitors of esterases. Such inhibitors are useful in the skin care compositions of the absorbent articles of the invention, and are disclosed in U.S. Pat. No. 5,376,655 issued to Imaki. . .

DETD . . . or otherwise restored or reused as an absorbent article after a single use. Examples of disposable absorbent articles include feminine hygiene garments such as sanitary napkins, panty liners and

tampons, diapers, incontinence briefs, incontinence pads, diaper holders, training pants, and the. . .

DETD . . . liquids (e.g., menses, urine, and/or other body exudates). The absorbent core is preferably compressible, conformable, and non-irritating to the wearer's skin. The absorbent core may be manufactured in a wide variety of sizes and shapes (e.g., rectangular, oval, hourglass, "T" shaped,. . .

DETD [0055] The topsheet is preferably compliant, soft feeling, and non-irritating to the wearer's skin. Further, the topsheet is liquid pervious, permitting liquids (e.g., menses and/or urine) to readily penetrate through its thickness. A suitable. . . combinations of the above, or the like. Whether comprised of a woven or nonwoven material, the topsheet preferably comprises a skin care composition containing a enzyme inhibitor, as described further below.

DETD . . . a portion of which has a enzyme inhibitor incorporated therein and, more preferably, has a wearer-contacting surface treated with a skin care composition containing a enzyme inhibitor, is a diaper. As used herein, the term "diaper" refers to an absorbent article. . .

DETD [0066] Alternatively, the topsheet may be in the form of an apertured formed film, which is preferred in feminine hygiene absorbent articles. Apertured formed films are useful because they are pervious to body liquids and yet non-absorbent and have a reduced tendency to allow liquids to pass back through and rewet the wearer's skin. Thus, the surface of the formed film that is in contact with the body remains dry, thereby reducing body soiling. . . Curro et al. on Dec. 16, 1986, which are hereby incorporated by reference. The preferred topsheet for use in feminine hygiene products is the formed film described in one or more of the above patents and marketed on sanitary napkins by. . .

DETD . . . the present invention, the absorbent article may be provided with means for improving contact between the topsheet and a wearer's skin. In one embodiment, the absorbent article can be provided with elastic means, as described in U.S. Pat. No. 4,892,536 issued. . .

DETD . . . utilized in the present invention to incorporate a enzyme inhibitor and/or a delivery system for delivering the inhibitor onto the skin of a wearer during wear of the article, as described below. The disclosure above is merely for illustrative purposes.

DETD [0079] Another disposable absorbent article for use in the present invention is a feminine hygiene article, such as a sanitary napkin. Suitable feminine hygiene articles are disclosed in U.S. Pat. No. 4,556,146 issued to Swanson et al. on Dec. 3, 1985; U.S. Pat. No.. . .

DETD [0118] V. Skin Care Compositions

DETD [0119] Skin care compositions suitable for use in the absorbent articles of the invention are described in U.S. patent application Ser. Nos.. . . No. 5,643,588, issued Jul. 1, 1997, the disclosures of each of which are hereby incorporated by reference. As indicated, the skin care composition is transferred to the skin of a wearer of a treated article by normal contact, wearer motion and/or body heat. As such, transfer of the enzyme inhibitor-containing skin care composition begins upon application of the article to the wearer, and continues throughout the wear period. Thus, the enzyme inhibitor is generally present on the skin of the wearer prior to insult by body exudates.

DETD . . . addition to its function as a vehicle for delivering a minimum

inhibitor concentration of an enzyme inhibitor to a wearer's skin, the skin care composition that comprises the enzyme inhibitor also preferably comprises ingredients that, for example, reduce the adherence of feces to skin (e.g., to improve the ease of bowel movement clean up), provide a skin /feces barrier function (e.g., to coat the skin to prevent the adherence of feces) while remaining relatively liquid impervious but vapor pervious, or provide other therapeutic benefits to the skin (e.g., improve skin softness, maintain or improve skin health), and the like. The skin care composition may be in a variety of forms, including, but not limited to, emulsions, lotions, creams, ointments, salves, suspensions,. . .

DETD [0121] In order to deliver an effective concentration of the enzyme inhibitor to the skin via an absorbent article over time, an effective amount of the skin care composition applied to or migrated to one or more of the wearer-contacting surfaces of the article depends, to a. . .

DETD [0122] While the amount of skin care composition applied to the absorbent article is an important aspect of the present invention, more important is the amount of composition transferred to the wearer's skin during use of one or more treated articles. Though the amount of the enzyme inhibitor-containing composition delivered to the skin will depend to some degree on the nature of the composition employed and the potency of the enzyme inhibitor, relatively low amounts may be delivered while still providing a minimum inhibitory concentration of the enzyme inhibitor to the skin. This is particularly true for preferred compositions, such as that described in Example 1.

DETD [0123] With regard to the level of skin care composition that is transferred to the wearer during use of one treated absorbent article worn for a period of about 3 hours (a typical daytime wear time), particularly for preferred skin care compositions such as that described in Example 1, preferred is where at least about 0.01 mg/in.sup.2 (0.0016 mg/cm.sup.2), more. . . mg/in.sup.2 (0.0078 mg/cm.sup.2), still more preferably at least about 0.1 mg/in.sup.2 (0.016 mg/cm.sup.2), of the composition is transferred to the skin over a three hour wear period. Typically, the amount of composition delivered by one treated article will be from about. . .

DETD . . . (0.016 mg/cm.sup.2), still more preferably at least about 0.3 mg/in.sup.2 (0.047 mg/cm.sup.2), of the composition is transferred to the wearer's skin over the 24 hour period. Typically, the amount of composition delivered after a period of 24 hours where treated articles. . . from about 0.3 mg/in.sup.2 (0.047 mg/cm.sup.2) to about 6 mg/in.sup.2 (0.93 mg/cm.sup.2). A method for determining the amount of the skin care composition transferred to the skin during wear of the treated article is described below.

DETD [0125] It will be recognized that of the numerous materials useful in the enzyme inhibitor-containing skin care compositions delivered to skin in accordance with the invention, those that have been deemed safe and effective skin care agents are logical materials for use herein. Such materials include Category I actives as defined by the U.S. Food and Drug Administration's (FDA) Tentative Final Monograph on Skin Protectant Drug Products for Over-the-Counter Human Use (21 C.F.R. .sctn.347), which presently include: allantoin, aluminum hydroxide gel, calamine, cocoa butter, dimethicone, cod liver oil (in combination), glycerine, kaolin, petrolatum, lanolin, mineral oil, shark liver oil, white petrolatum,

talc, topical starch, zinc acetate, zinc carbonate, zinc oxide, and the like. Other potentially useful materials are Category III actives as defined by the U.S. Food and Drug Administration's Tentative Final Monograph on Skin Protectant Drug Products for Over-the-Counter Human Use (21 C.F.R. .sctn.347), which presently include: live yeast cell derivatives, aldioxa, aluminum acetate,. . .

DETD [0126] Many of the FDA monographed skin care ingredients are currently utilized in commercially available skin care products, such as A and D® Ointment, Vaseline® Petroleum Jelly, Desitin® Diaper Rash Ointment and Daily Care® ointment, Gold. .

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DETD [0127] As discussed further hereinafter, the skin care compositions useful for transferring enzyme inhibitors to the skin of the wearer preferably, though not necessarily, have a melting profile such that they are relatively immobile and localized on. . . are not completely liquid under extreme storage conditions. In this regard, the compositions are at least partially transferable to the skin by way of normal contact, wearer motion, and/or body heat. Because the composition preferably is substantially immobilized on the article's wearer-contacting surface, relatively low levels of composition are needed to impart the desired skin care benefits. In addition, special barrier or wrapping materials may be unnecessary in packaging the treated articles useful in the. . .

DETD [0128] In a preferred embodiment, the skin care compositions useful herein are water-in-oil emulsions, wherein the enzyme inhibitor is in the aqueous phase. However, the skin care composition itself may be solid or more often semi-solid, at 20° C., i.e., at ambient temperatures. By "semisolid" is. . .

DETD . . . and migrate to a significant degree to undesired locations of the article to which they are applied. This means less skin care composition is required for imparting desirable therapeutic, protective and/or conditioning benefits.

DETD . . . within the article to undesired location. Unfortunately, in some instances, higher viscosities may inhibit transfer of composition to the wearer's skin. Therefore, a balance should be achieved so the viscosities are high enough to keep the compositions localized on the surface of the article, but not so high as to impede transfer to the wearer's skin. Suitable viscosities for the compositions will typically range from about 5 to about 500 centipoise, preferably from about 5 to. . .

DETD [0132] For skin care compositions designed to provide a therapeutic and/or skin protective benefit in addition to the benefit derived from the enzyme inhibitor, a useful active ingredient in these compositions is one or more skin protectants or emollients. As used herein, the term "emollient" is a material that protects against wetness or irritation, softens, soothes, supples, coats, lubricates, moisturizes, protects and/or cleanses the skin. (It will be recognized that several of the monographed actives listed above are "emollients", as that term is used herein.). .

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DETD . . . fatty alcohols; other fatty esters of polyhydroxy alcohols; lanolin and its derivatives; kaolin and its derivatives; any of the monographed skin care agents listed above; or mixtures of these emollients. Suitable petroleum-based emollients include those hydrocarbons, or mixtures of hydrocarbons, having. . .

DETD . . . that can be included in the composition will depend on a variety of factors, including the particular emollient involved, the

skin benefits desired, the other components in the composition and like factors. The composition will comprise from 0 to about 100%,. . .

DETD [0145] Another optional, preferred component of the enzyme inhibitor-containing skin compositions useful in the present invention is an agent capable of immobilizing the composition (including the enzyme inhibitor, the preferred emollient and/or other skin condition/protective agents) in the desired location in or on the treated article. Because certain of the preferred components in the. . .

DETD [0146] Specifically, if any component in the skin care composition migrates into the interior of the article, it can cause undesired effects on the absorbency of the article core due to the hydrophobic characteristics of, for example, the emollients and other skin conditioning agents used in the compositions useful in the articles of the present invention. It also means that more skin care composition has to be applied to the article to get the desired skin benefits. Increasing the level of the skin care composition not only increases the cost, but also exacerbates the undesirable effect on the absorbency of the article's core. . .

DETD [0147] The immobilizing agent counteracts the tendency of the skin care composition components to migrate or flow by keeping them primarily localized on the surface or in the region of. . .

DETD . . . useful herein can be selected from any of a number of agents, so long as the enzyme-inhibiting properties of the skin care composition provide the skin benefits described herein. It will be recognized that certain emollients or classes of emollients will also have melt characteristics such. . .

DETD . . . three or more free hydroxy groups on the polyhydroxy moiety and are typically nonionic in character. Because of the possible skin sensitivity of those using articles to which the composition is applied, these esters and amides should also be relatively mild and non-irritating to the skin.

DETD . . . Additionally microcrystalline waxes are effective immobilizing agents. Microcrystalline waxes can aid in "locking" up low molecular weight hydrocarbons within the skin care composition. Preferably the wax is a paraffin wax. An example of a particularly preferred alternate immobilizing agent is a. . .

DETD . . . be desirable that the composition be sufficiently wettable to ensure that liquids will transfer through the topsheet rapidly. Alternatively, hydrophobic skin care compositions may be utilized, so long as they are applied such that the fluid handling properties of the topsheet. . .

DETD [0170] Suitable hydrophilic surfactants will preferably be miscible with the other components of the skin care composition so as to form blended mixtures. Because of possible skin sensitivity of those using disposable absorbent products to which the composition is applied, these surfactants should also be relatively mild and non-irritating to the skin. Typically, these hydrophilic surfactants are nonionic to be not only non-irritating to the skin, but also to avoid other undesirable effects on any other structures within the treated article. For example, reductions in tissue. . .

DETD [0177] If water-based skin care compositions are used, a preservative will be needed. Suitable preservatives include propyl paraben, methyl paraben, benzyl alcohol, benzylkonnium, tribasic. . .

DETD [0179] In preparing absorbent articles to carry out the methods of the

present invention, the skin care composition containing the enzyme inhibitor is applied such that during wear, at least some portion of the composition will transfer from the treated article to the wearer's skin. That is, skin care composition is either applied directly to one or more wearer contacting surfaces, or is applied in alternate locations or means such that the skin care composition is readily available for transfer from one or more wearer contacting surfaces during use without intervention by the user/caregiver. (For example, materials positioned beneath the wearer contacting surface, encapsulated compositions, etc.) The skin care composition may be incorporated into any portion or portions of the article including, but not limited to, the topsheet,. . .

DETD [0180] Of course, to effectuate delivery of composition to those body regions most susceptible to skin roughness, it will be preferred to include the composition on the portion of the topsheet and cuffs that will contact. . . (e.g., flexographic printing), coating (e.g., contact slot coating, gravure coating), extrusion, or combinations of these application techniques, e.g., spraying the skin care composition on a rotating surface, such as a calender roll, that then transfers the composition to the desired portion of the article. The skin care composition containing the enzyme inhibitor can also be applied as a solid material via any of a variety methods,. . .

DETD . . . benefits. Similarly, saturation of other treated article components may not be necessary or desired to transfer sufficient composition for desired skin benefits. Particularly suitable application methods will apply the composition primarily to the outer surface of the topsheet of the article.

DETD . . . enzyme inhibitor to be applied to the article's wearer-contacting surface is an amount effective for providing the therapeutic, protective and/or skin conditioning benefits when the composition is delivered pursuant to the present invention. The level of composition applied will depend on. . . from about 1 mg/in.sup.2 (0.16 mg/cm.sup.2) to about 10 mg/in.sup.2 (1.55 mg/cm.sup.2). It will be recognized that higher levels of skin care composition may be applied to other article components where fluid handling properties are not impacted (e.g., cuffs, waist band,. . .

DETD . . . effective amount of the enzyme inhibitor. It is believed that the ability to use low levels to impart the desired skin benefits is due to the fact that the composition is continuously, automatically delivered as articles are worn. As indicated, the ability to use relatively low levels of skin care composition, allows the article's topsheet to maintain its liquid transfer properties in the liquid discharge region.

DETD . . . composition is applied), during wear of the article, the composition is transferred to the wearer even in regions of the skin corresponding to untreated regions within the topsheet or other components. The amount and uniformity of composition transferred to the skin is believed to depend on several factors, including, for example, application pattern of the skin care composition, contact of the wearer's skin to the treated article surface, friction created during wear time between the wearer's skin and the treated region, warmth generated from wearer to enhance the transfer of the composition, the composition's properties, the materials. . .

DETD [0189] Skin care composition can also be applied in nonuniform patterns on other article components. In these cases, the open area is

calculated by the rectangle defined by the perimeters of the skin care composition.

DETD [0195] A. Transfer of Skin Care Composition and Enzyme Inhibitor to Wearer's Skin

DETD [0197] This method uses a removable skin analog material that is placed on a wearer's skin for a controlled period of time. After the skin analog has been removed, it is extracted using an appropriate solvent and the amount of skin care composition or the amount of enzyme inhibitor deposited thereon is determined using known analytical methods. The method is described for use with infant diapers comprising skin care compositions containing enzyme inhibitors, as defined herein. One of skill in the art will recognize the appropriate changes for other skin care compositions, enzyme inhibitors, absorbent articles, or wearer types.

DETD [0202] b. Caregiver willing to not use lotions, creams, powders or other skin preparations in the diaper area for the duration of the test.

DETD [0209] c. Medication which might increase frequency of bowel movements (e.g., oral antibiotics, anti fungal agents, corticosteroids).

DETD [0210] d. Damaged skin in or around the test site (e.g., from sunburn, active dermal lesions, or the like).

DETD [0211] e. Known allergies or irritation from adhesive or skin care ingredients.

DETD [0214] Skin Analog: Dermatological Tape-TEGADERM Tape No. 1622W available from 3M Health Cares, St. Paul, Minn.

DETD [0218] Extraction and Analysis of Skin Care Composition

DETD . . . the last 24 hours and that no lotions, powders, etc. have been applied to the diapered region of the subject's skin since bathing.

DETD . . . the tape except the edges. (This step is done to keep the tape from adhering too aggressively to the child's skin.).

DETD [0242] 2. Do not use skin care products (lotions, ointments, creams, soap, etc.) for the duration of the test.

DETD . . . the edge of the tape 700 with tweezers and gently peeling the remaining portion of the tape 700 from the skin.

DETD [0252] 1. Extraction and Analysis of Test Samples For Skin Care Composition

DETD [0253] This method is designed for use with the preferred skin care composition, the skin care composition of Table 4. One of ordinary skill in the art will recognize what adaptations may be necessary to extract and analyze the level of other skin care compositions. In principle: 1) one of the major ingredients of the composition is extracted from the skin analog using an appropriate solvent; 2) gas chromatographic or other appropriate quantitative analytical techniques are then used to determine the level of the major ingredient in the extract; 3) amount of skin care composition is calculated per unit area based on amount of major ingredient in extract and the area of the. . .

DETD . . . the volumetric flask to volume and mix well. This solution will be used to deliver the internal standard and extract skin care composition from the tapes. When not being used, this container should be kept tightly capped to prevent evaporation of. . .

DETD [0287] Report amount of skin care composition transferred in mg/cm.sup.2 where: ##EQU3##

DETD [0290] This method is designed for use with the skin care composition containing a enzyme inhibitor of Table 1. One of ordinary skill in the art will recognize what adaptations. . . to extract and

analyze the level of other enzyme inhibitors. In principle: 1) the enzyme inhibitor is extracted from the skin analog using an appropriate solvent; 2) HPLC or other quantitative analytical techniques are then used to determine the level of. . .

DETD . . . Divide the amount of hexamidine (H) by the tape area to determine the concentration of hexamidine per unit area of skin analog.

DETD [0315] The following are specific illustrations of (a) treating diaper topsheets with skin care compositions and (b) methods of the present invention which utilize articles comprising those topsheets. Similar approaches may be utilized. . . .

DETD Preparation and Testing of an Absorbent Article Having a Topsheet Comprising a Skin Care Composition and an Enzyme Inhibitor

DETD [0316] A. Preparation of Skin Care Compositions

DETD [0318] A skin care composition is made by mixing the following components together: 99 parts of a melted (i.e., liquid) base composition containing. . .

DETD [0320] A skin care composition is made by mixing the following components together: 99 parts of a melted (i.e., liquid) base composition containing. . .

DETD [0322] A skin care composition is prepared as in composition 2, except that triacetin (Sigma Chemicals) is employed instead of tranexamic acid.

DETD [0324] A skin care composition is made by mixing the following components together: 9 parts of a melted (i.e., liquid) base composition containing. . .

DETD Method of Improving Skin Health

DETD . . . application of a fresh article before overnight sleep.) No intervention by the user, in the form of manual application of skin protective or moisture repellent products, occurs during this period. At the end of the 5 day period, the subject is. . .

DETD Method of Improving Skin Health

DETD . . . according to the routine patterns of the caregiver. No intervention by the caregiver, in the form of manual application of skin protective or moisture repellent products, occurs during this period. At the end of the 5 day period, the subject is. . .

DETD [0329] Method of Maintaining Skin Health

DETD . . . throughout the period of administration of the antibiotic. No intervention by the caregiver, in the form of manual application of skin protective or moisture repellent products, occurs during this period. Throughout the period of antibiotic administration, the subject exhibits no erythema. . .

CLM What is claimed is:

1. An absorbent article having a skin care composition disposed on at least a portion of the article, the skin care composition is solid or semi-solid at 20° C. and comprises (i) from about 0.001% to about 50% of an. . .

6. The article of claim 5, wherein the skin care composition comprising the enzyme inhibitor is applied to the topsheet such that one or more regions of the topsheet are not treated with the skin care composition.

7. The article of claim 6, wherein the skin care composition comprising the enzyme inhibitor is applied to the topsheet in the form of a plurality of stripes that are separated by a plurality of stripes having no skin care composition.

8. The article of claim 1, wherein the skin care composition is applied to the topsheet at a level in the range of about 0.05 mg/in.sup.2 (0.0078 mg/cm.sup.2) to. . .
9. The article of claim 1, wherein at least about 0.01 mg/in.sup.2 (0.0016 mg/cm.sup.2) of the skin care composition containing the enzyme inhibitor is transferred to the wearer's skin during use of the article treated with the skin care composition.

10. The article of claim 1, wherein the skin care composition comprises a petroleum-based emollient selected from the group consisting of mineral oil, petrolatum, and mixtures thereof.

11. The article of claim 1, wherein the skin care composition further comprises a member selected from the group consisting of fatty acid ester type emollients; alkyl ethoxylate type. . . alantoin; aluminum hydroxide gel; calamine; cocoa butter; cod liver oil; kaolin; lanolin; mineral oil; shark liver oil; white petrolatum talc; topical starch; zinc acetate; zinc carbonate; zinc oxide; live yeast cell derivatives; aldioxa; aluminum acetate; microporous cellulose; cholecalciferol; colloidal oatmeal; cysteine. . .
13. An absorbent article containing the skin care composition that comprises an enzyme inhibitor, wherein the enzyme inhibitor has an IC.sub.50 of about 50 μM or less, as measured by a General Fecal Enzyme Method, and the skin care composition comprising the enzyme inhibitor is at least partially transferred from the article to the skin of a wearer of the article as a result of normal contact, wearer motion, and/or body heat.

14. The article of claim 13, wherein the skin care composition is solid or semi-solid at 20° C.

15. The article of claim 13, wherein the skin care composition further comprises about 5% to about 95% of an emollient having a plastic or fluid consistency at 20°. . .
17. The article of claim 13, wherein the skin care composition comprises from about 0.001% to about 50% of the enzyme inhibitor.

19. A method for reducing the enzymatic activity of a fecal enzyme on a portion of the skin of a wearer of an absorbent article, comprising the steps of (i) providing an absorbent article, at least a portion of which comprises a skin care composition that comprises an enzyme inhibitor, the enzyme inhibitor has an IC.sub.50 of about 50 μM or less, as measured by a General Fecal Enzyme Method, and (ii) transferring a portion of the skin care composition to the skin of the wearer during wear of the article.

22. The method of claim 19, wherein the skin care composition is solid or semi-solid at 20° C.

23. The method of claim 22, wherein the skin care composition further comprises (i) about 5% to about 95% of an emollient having a plastic or fluid consistency at. . . .
24. The method of claim 19, wherein the skin care composition is applied to the topsheet at a level in the range of about 0.05 mg/in.sup.2 (0.0078 mg/cm.sup.2) to. . .

IT 50-70-4, Sorbitol, biological studies 50-70-4D, Sorbitol, derivs.

52-89-1, Cysteine hydrochloride 55-56-1, Chlorhexidine 56-81-5, Glycerin, biological studies 57-50-1D, Sucrose, esters with fatty acids 57-55-6, Propylene glycol, biological studies 58-95-7, Vitamin E acetate 59-51-8, Methionine 60-00-4, Ethylenediamine tetraacetic acid, biological studies 67-97-0, Cholecalciferol 79-83-4, Vitamin B5 81-13-0, Dexpanthenol 83-86-3, Phytic acid 83-86-3D, Phytic acid, salts 97-59-6 100-33-4, PEntamidine 102-76-1, TRiacetin 112-27-6, Triethylene glycol 112-92-5, CO 1897 117-39-5, Quercetin 139-12-8, Aluminum acetate 139-44-6, Trihydroxystearin 144-55-8, Sodium bicarbonate, biological studies 402-71-1, TPCK 471-53-4, 18β-Glycyrrhetinic acid 471-53-4D, 18β-Glycyrrhetinic acid, salts 546-88-3 557-34-6, Zinc acetate 618-39-3, Benzamidine 659-40-5, Elestab HP 100 1197-18-8, Tranexamic acid 1197-18-8D, Tranexamic acid, salts 1314-13-2, Zinc oxide, biological studies 1405-86-3, Glycyrrhizic acid 1405-86-3D, Glycyrrhizic acid, salts 1406-18-4, Vitamin E 2364-87-6, TLCK 2817-45-0D, Phosphoramidic acid, salts 3486-35-9, Zinc carbonate 3811-75-4, Hexamidine 3858-83-1, p-Aminobenzamidine 5579-81-7, Aldioxa 7440-66-6D, Zinc, salts 8001-27-2, Hirudin 8011-96-9, Calamine 9000-94-6, Antithrombin III 9004-34-6, Cellulose, biological studies 9005-25-8, Starch, biological studies 9006-65-9, Dimethicone 9041-92-3, α1-Antitrypsin 9076-44-2, Chymostatin 9078-38-0, Soybean trypsin inhibitor 9087-70-1, Aprotinin 11041-12-6, Cholestyramine 13832-70-7, Stearylglycyrrhetinate 14807-96-6, Talc, biological studies 21645-51-2, Aluminum hydroxide, biological studies 25322-68-3, Polyethylene glycol 25322-68-3D, Polyethylene glycol, derivs. 30827-99-7, 4-(2-Aminoethyl)-benzenesulfonylfluoride hydrochloride 37205-61-1, Proteinase inhibitor 39324-30-6, Pepstatin 55123-66-5, Leupeptin 56180-94-0, Acarbose 56449-50-4 58970-76-6, Bestatin 67655-93-0, Esterastin 72432-03-2, Miglitol 76808-15-6, Ebelactone B 76808-16-7, Ebelactone A 80879-63-6, Emiglitate 81989-95-9, Cystatin 83480-29-9, Voglibose 83654-05-1 86596-25-0, Tendamistat 86596-26-1, Trestatin 96829-58-2, Tetrahydrolipstatin 96829-59-3, Lipstatin 106392-12-5, Polyethylene glycol-polypropylene glycol block copolymer 113276-96-3, Valilactone 127214-23-7, Camiglibose 128826-89-1, Salbostatin 133856-63-0, Guanidinobenzoic acid 133856-63-0D, Guanidinobenzoic acid, salts 141869-53-6, Pradimicin Q (disposable absorbent article having skin care composition containing enzyme inhibitor)

L42 ANSWER 25 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2003:134687 USPATFULL	
TITLE:	End modified thermal responsive hydrogels	
INVENTOR(S):	Ron, Eyal S., Lexington, MA, UNITED STATES Bromberg, Lev, Swampscott, MA, UNITED STATES Temchenko, Marina, Swampscott, MA, UNITED STATES	

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003092776	A1	20030515
	US 7008628	B2	20060307
APPLICATION INFO.:	US 2001-7184	A1	20011113 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-368440, filed on 4 Aug 1999, GRANTED, Pat. No. US 6316011		

	NUMBER	DATE

PRIORITY INFORMATION: US 1998-95330P 19980804 (60)
US 1998-97741P 19980824 (60)
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Eyal S. Ron, 7 Coach Road, Lexington, MA, 02420
NUMBER OF CLAIMS: 40
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Page(s)
LINE COUNT: 2174
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . polymers and compositions useful in a variety of pharmaceutical and personal care products and applications, and in particular, compositions useful topical and/or mucosal applications, such as esophageal, otic, vaginal, rectal, ophthalmic and treatments of disorders and imperfections of the skin.

SUMM . . . a very thin epithelium with minimal keratinized tissue that does not hinder the drug transport as compared to normal epidermal skin containing thick layers of keratinized tissues. Therefore, mucosal tissues offer an attractive surface to promote drug absorption.

SUMM [0005] Despite the advantages of mucosal tissue as a site for drug delivery, direct topical application of pharmacological agents onto mucosal tissues has very limited value, due to the facile clearance of those agents via. . .

SUMM [0006] Bioadhesion or mucoadhesion is generally understood as the ability of a biological or synthetic material to "stick" to mucous membrane, resulting in adherence of the material to the tissue for protracted period of time. This concept has received significant attention. . .

SUMM . . . emolliency to the composition. The composition may also act as a film-forming agent after it has been applied to the skin or other mucosal membrane. This film-forming agent may be used as a barrier to prevent water loss from the skin which contributes to the moisturization of the skin. The formed-film could also provide protective coating ("band-aid") to protect the tissue against environmental challenge(s) or to provide a mechanical. . .

SUMM . . . emollience to the composition. The composition may also act as a film-forming agent after it has been applied to the skin. This film-forming agent may be used as a barrier to prevent water loss from the skin which contributes to the moisturization of the skin.

DETD . . . mucosal adhesion. Bioadhesion or mucoadhesion is generally understood as the ability of a biological or synthetic material to "stick" to mucous membrane, resulting in adherence of the material to the tissue for protracted period of time. This concept has received a significant. . .

DETD . . . but in providing treatments for animal care. For veterinary products, the end-modified hydrogel composition is indicated for the preparation of topical dermal products, such as antibacterials, antifungals, antipruritics, and antiseborrheia, antiodor, and antiseptic/wound healing preparations. Otic products would include ear cleaners. . .

DETD . . . but are in no way limited to, mucosal therapies, such as esophageal, otic, rectal, buccal, oral, vaginal, and urological applications; topical therapies, such as wound care, skin care and teat dips; and intravenous/subcutaneous therapies, such as intramuscular, intrabone (e.g., joints), spinal and subcutaneous therapies, tissue supplementation, adhesion. . .

DETD . . . including humans, sheep, horses, cattle, pigs, dogs, cats, rats, mice; birds; reptiles; fish; insects; arachnids; protists (e.g. protozoa); and prokaryotic bacteria. The term "plant" means higher plants (angiosperms, gymnosperms), fungi, and prokaryotic blue-green "algae" (i.e. cyanobacteria).

DETD . . . group consisting of MMR (mumps, measles and rubella) vaccine, typhoid vaccine, hepatitis A vaccine, hepatitis B vaccine, herpes simplex virus, bacterial toxoids, cholera toxin B-subunit, influenza vaccine virus, bordetela pertussis virus, vaccinia virus, adenovirus, canary pox, polio vaccine virus, plasmodium falciparum,. . .

DETD [0112] Examples of bacterial toxoids are tetanus, diphtheria, pseudomonas A, mycobacterium tuberculosis. Examples of HIV envelop glycoproteins are gp 120 and gp 160 for. . .

DETD . . . the composition to increase the effectiveness of the emollient, to reduce scaling, to stimulate removal of built-up scale and improve skin feel. The amount of humectant may be in the range of about 0.5-30 wt % and preferably between 1-15 wt. . .

DETD . . . thinly to allow for even application, due to its low viscosity at room temperature, but will thicken and "fill" the skin contours upon warming up to body surface temperature.

DETD . . . through a nozzle that provides high shear to reduce viscosity, yet the composition regains its viscosity after application to the skin. This contrasts with conventional formulations which permanently lose viscosity after being subjected to high shear.

DETD . . . shadow, eye lotion, eye makeup remover and mascara; fragrance preparations, such as colognes and toilet waters, powders and sachets; noncoloring hair preparations, such as hair conditioner, hair spray, hair straighteners, permanent waves, rinses shampoos, tonics, dressings and other grooming aids; color cosmetics; hair coloring preparations such as hair dye, hair tints, hair shampoos, hair color sprays, hair lighteners and hair bleaches; makeup preparations such as face powders, foundations, leg and body paints, lipstick, makeup bases, rouges and makeup fixatives; manicuring preparations such as basecoats and undercoats, cuticle softeners, nail creams and lotions, nail extenders, nail polish and enamel, and nail polish and enamel remover; oral hygiene products such as dentrifices and mouthwashes; personal cleanliness, such as bath soaps and detergents, deodorants, douches and feminine hygiene product; shaving preparations such as aftershave lotion, beard softeners, men's talcum, shaving cream, shaving soap and preshave lotions; skin care preparations such as cleansing preparations, skin antiseptics, depilatories, face and neck cleansers, body and hand cleansers, foot powders and sprays, moisturizers, night preparations, paste masks, and skin fresheners; and suntan preparations such as suntan creams, gels and lotions, indoor tanning preparations.

DETD . . . dipilatories, detergents, dispersants, emollients, emulsifiers, enzymes, essential oils, exfoliants, fibers, film forming agents, fixatives, foaming agents, foam stabilizers, foam boosters, fungicides, gellants, glosser, hair conditioner, hair set resins, hair sheen agents, hair waving agents, humectants, lubricants, moisture barrier agents, moisturizers, ointment bases, opacifier, plasticizer, polish, polymers, powders, propellant, protein, refatting agents, sequestrant, silicones, skin calming agents, skin cleansers, skin

conditioners, skin healing, skin lightening agents, skin protectants, skin smoothing agents, skin softening agents, skin soothing agents, stabilizers, sunscreen agents, surfactants, suspending agents, tanning accelerators, thickeners, vitamins, waxes, wetting agents, liquefiers, colors, flavors and/or fragrances. . .

DETD . . . the composition to increase the effectiveness of the emollient, to reduce scaling, to stimulate removal of built-up scale and improve skin feet. By way of example only, suitable humectants include polyhydric alcohols, such as glycerol, polyalkylene glycols, alkylene polyols their derivatives,. . .

DETD [0137] In topical skin care applications, a variety of active substances may be advantageously employed. By way of example only suitable active agents which. . . substances, anti-acne active substances, firming-up active substances, exfoliating active substances, emollient active substances, and active substances for the treating of skin disorders such as dermatitis and the like.

DETD . . . and the other absorbs strongly in the UVA radiation range. These sunscreening agents provide higher efficacy, broader UV absorption, lower skin penetration and longer lasting efficacy relative to conventional sunscreens. Generally, the sunscreens can comprise from about 0.5% to about 20%. . .

DETD . . . cosmetic and personal care products. In particular, they may be useful as rheology modifiers, provide a cushioning effect on the skin, offer barrier properties and controlled release of actives. In addition, the polymer composition may serve as a surfactant and is. . . poloxamer:poly(acrylic acid) composition provides a cosmetic composition that spreads evenly and smoothly and which leaves a lubricious feel to the skin.

DETD [0196] Lidocain Gel (2 %). An example of a topical gel containing Lidocaine as the active agent.

Lidocain hydrochloride	2 g
Water	58 g
Propylene glycol	20 g

. . .

DETD . . . temperature until the air bubbles escaped. The formed hydrogel is clear and flowable at room temperature. Once applied on the skin the solution viscosity to provide a cushion and lubricous effect.

CLM What is claimed is:

18. The pharmaceutic composition of claim 12, wherein the pharmaceutical agent is absorbable through skin or mucosal membranes.

. . . composition of claim 20, wherein the pharmaceutically active agent is selected from the group consisting of natural and synthetic hormones, anti-fungals, contraceptives, anti-yeast agents, steroids, moisturizers, spermicides, anti-virals, analgesics and anaesthetics.

IT 79-10-7, Acrylic acid, reactions 814-68-6, Acryloyl chloride 32403-69-3 106392-12-5, Polyoxyethylene-polyoxypropylene block copolymer 106392-12-5D, amine-terminated, PEO and PPO amide derivs., acrylic polymers
(polyoxyalkylenes end-modified with acrylates as thermal responsive hydrogels)

L42 ANSWER 26 OF 39 USPATFULL on STN
ACCESSION NUMBER: 2003:86878 USPATFULL
TITLE: Liquid formulations for the prevention and treatment of mucosal diseases and disorders
INVENTOR(S): Jacob, Jeremy E., Lewisville, TX, UNITED STATES
Nowotnik, David P., Colleyville, TX, UNITED STATES
Baud, Christiane M., Dallas, TX, UNITED STATES
PATENT ASSIGNEE(S): ACCESS PHARMACEUTICALS, INC. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003060486	A1	20030327
APPLICATION INFO.:	US 2002-219634	A1	20020815 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2002-77459, filed on 15 Feb 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-269049P	20010215 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Daniel S. Hodgins, JACKSON WALKER, LLP, Suite 2100, 112 E. Pecan, San Antonio, TX, 78205
NUMBER OF CLAIMS: 34
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Page(s)
LINE COUNT: 1043
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . active compound. One or more pharmaceutically active compounds may be included in the formulation to provide additional benefit in the topical treatment of diseases and disorders of the mucosa.

SUMM . . . and/or ulceration. Examples of such diseases in the oral cavity include aphthous ulcers, bullous pemphigoid, oral lichen planus, and oral mucous membrane contact dermatitis. Many other ulcerative mucocutaneous diseases are known. There are also painful ulcerative disorders of mucosal surfaces which result. . .

SUMM . . . its associated innervation, which, as the mucosal lesions enlarge, contributes to increasing pain. Oral infections, which may be due to bacteria, viruses, or fungal organisms, can further exacerbate the mucositis as well as lead to systemic infections. If the patient develops both severe mucositis. . .

SUMM . . . regimens based on little or no supporting data of safety and efficacy. There is even disagreement on whether good oral hygiene is beneficial (for example: Dodd M J, Miaskowski C, Shiba G H, Dibble S L, Greenspan D, MacPhail L, Paul S M, Larson P, Risk factors for chemotherapy-induced oral mucositis: dental appliances, oral hygiene, previous oral lesions, and history of smoking, Cancer Invest 1999;17(4):278-84 and Cheng K K, Molassiotis A, Chang A M, Wai. . . protocol intervention in the prevention of chemotherapy-induced oral mucositis in pediatric cancer patients, Eur J Cancer 2001 November;37(16):2056-6). Good oral hygiene is typically recommended, supplemented by formulations which are compounded locally and primarily used to provide prophylaxis. Thus, patients will be. . .

SUMM [0015] i) Palliative: saline and bicarbonate rinses, sucralfate suspensions, and topical analgesics (for example, viscous lidocaine, dyclonine, diphenhydramine, and loperamide.

SUMM [0020] Topical coating agents such as magnesium hydroxide

(e.g., Milk of Magnesia), Kaopectate (Pharmacia & Upjohn, Columbus, Ohio), OraRinse (Carrington Laboratories), GelClair. . .

DETD . . . the gastrointestinal and respiratory tracts, the vagina, and the bladder. Inflammatory, erosive, and/or ulcerative diseases which can be treated by topical application of the compositions described in this patent include, but are not limited to, aphthous ulcers, Behget syndrome, bullous pemphigoid,. . .

DETD [0041] For topical treatment of mucosal membranes, aqueous solutions of pharmaceutically-active compounds offer the advantage over other dosage forms in that a wide. . .

DETD . . . Pharmaceutically active compounds which may be formulated with the stable mucoadhesive liquid and gel formulations of the current invention for topical treatment of a mucosa can include, either alone or in combination, one or more of the following classes of drugs:. . .

DETD . . . no harm to the mucosa, and possibly provides benefit; for example, as disinfectants, or to aid the solvation of the mucous membrane to provide more rapid mucoadhesion, or for concentration of the excipients (through evaporation of the solvent following application to the. . .

DETD . . . is used as a marker of film erosion and retention (the latter by delivery of the marker across the model mucous membrane). The study clearly demonstrates that the liquid requires both mucoadhesion and viscosity for retention.

IT 56-40-6, Glycine, biological studies 56-81-5, Glycerin, biological studies 64-17-5, Ethanol, biological studies 77-92-9, Citric acid, biological studies 9000-30-0, Guar gum 9000-65-1, Tragacanth gum 9000-69-5, Pectin 9002-89-5, Polyvinyl alcohol 9003-39-8, Polyvinylpyrrolidone 9003-97-8, Noveon AA1 9004-32-4, Sodium carboxymethyl cellulose 9004-34-6D, Cellulose, ethers 9005-67-8, Polysorbate 60 9012-76-4, Chitosan 9042-14-2, Dextran sulfate 11138-66-2, Xanthan gum 24967-94-0, Dermatan sulfate 25086-15-1, Eudragit L100 25322-68-3, Polyethylene oxide 68302-57-8, Amlexanox 106392-12-5, Ethylene oxide-propylene oxide block copolymer 161279-68-1, Carbopol 971P
(mucoadhesive aqueous compns. for prevention and treatment of mucosal disorders)

L42 ANSWER 27 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2002:332754 USPATFULL
TITLE:	Method for treating multiple sclerosis
INVENTOR(S):	Hunter, William L., Vancouver, CANADA
PATENT ASSIGNEE(S):	Angiotech Pharmaceuticals, Inc., Vancouver, CANADA (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6495579	B1	20021217
APPLICATION INFO.:	US 1998-88546		19980601 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1997-980549, filed on 1 Dec 1997		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-63087P	19971024 (60)
	US 1996-32215P	19961202 (60)
DOCUMENT TYPE:	Utility	

FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Geist, Gary
ASSISTANT EXAMINER: Crane, L. E.
LEGAL REPRESENTATIVE: Seed Intellectual Property Law Group PLLC
NUMBER OF CLAIMS: 29
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 167 Drawing Figure(s); 107 Drawing Page(s)
LINE COUNT: 8213
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . as an insidious process that progresses with time, for example, as a result of a persistent infection (e.g., tuberculosis, syphilis, fungal infection) which causes a delayed hypersensitivity reaction, prolonged exposure to endogenous (e.g., elevated plasma lipids) or exogenous (e.g., silica, asbestos,. . .

SUMM Psoriasis is a common, chronic inflammatory skin disease characterized by raised, inflamed, thickened and scaly lesions, which itch, burn, sting and bleed easily. In approximately 10% of. . .

SUMM . . . evidence that it is a polygenic autoimmune disorder. In addition, there is currently no cure for psoriasis. Available treatments include topical therapies such as steroid creams and ointments, coal tar and anthralin, and systemic treatment such as steroids, ultra violet B,. . .

SUMM . . . and is often short lived. Other complications of this disease include eye inflammation (iritis, conjunctivitis and episcleritis), mouth inflammation (mucositis), skin inflammation (erythema nodosum and pyoderma gangrenosum), musculoskeletal abnormalities (ankylosing spondylitis), renal complications (kidney stones and fistulas to urinary tract), gallstones. . .

SUMM . . . in children and about 20% in those with cystic fibrosis. Other conditions associated with nasal polyps are Churg-Strauss syndrome, allergic fungal sinusitis and cilia dyskinetic syndrome and Young's syndrome. About 40% of patients with surgical polypectomies have recurrences (Settipane, Allergy Asthma. . .

SUMM . . . rhinology. Complementary medical treatment of polyposis is always necessary, as surgery cannot treat the inflammatory component of the mucosal disease. Topical corticosteroids are the most widely utilized treatment to reduce the size of polyps and to prevent recurrence after surgery. Steroids. . .

DRWD . . . ears by oxazolone. Treatment with 1% paclitaxel gel or vehicle at the time of antigen challenge and then once daily. Skin inflammation was quantitated by measurements of ear swelling as compared to pre-challenge ear thickness. Data represent means values +/-SD (n=5).. . .

DRWD . . . by oxazolone. Initial treatment with 1% paclitaxel gel or vehicle at 24 hours after antigen challenge and thereafter once daily. Skin inflammation was quantitated by measurements of ear swelling as compared to pre-challenge ear thickness. Data represent mean values +/-SD (n=5).. . .

DRWD FIG. 71 is a graph which depicts the induction of skin inflammation in mouse ears by topical application of PMA. Initial treatment with 1% paclitaxel gel or vehicle at 1 hour after PMA application and thereafter once daily. Skin inflammation was quantitated by measurements of ear swelling as compared to pre-challenge ear thickness. Data represent mean values +/-SD (n=5).. . .

DRWD FIG. 72 is a graph which depicts the induction of skin inflammation in mouse ears by topical application of PMA. Initial treatment with 1% paclitaxel gel or vehicle at 24 hours after

PMA application and thereafter once daily. Skin inflammation was quantitated by measurements of ear swelling as compared to pre-challenge ear thickness. Data represent mean values +/-SD (n=5).. . .

DRWD FIG. 73 illustrates induction of skin inflammation in mouse ears by topical application of PMA. Pre-treatment with 1% paclitaxel gel (right ear) or vehicle (left ear). Image was taken at 48 hours. . .

DETD . . . which has been obtained from the harvested and dried bark of Taxus brevifolia (Pacific Yew) and Taxomyces Andreanae and Endophytic Fungus of the Pacific Yew (Stierle et al., Science 60:214-216, 1993). "Paclitaxel" (which should be understood herein to include prodrugs, analogues. . .

DETD Within further aspects of the invention, the therapeutic compositions may be formulated for topical application. Representative examples include: ethanol; mixtures of ethanol and glycols (e.g., ethylene glycol or propylene glycol); mixtures of ethanol and. . . Hadgraft, Pharm. Res. 12:993, 1995; Jasti et al., AAPS Proceedings, 1996; Lee et al., AAPS Proceedings, 1996; Ritschel et al., Skin Pharmacol. 4:235, 1991; and McDaid & Deasy, Int. J. Pharm. 133:71, 1996.

DETD 1. Inflammatory Skin Diseases (e.g. Psoriasis and Eczema)

DETD Utilizing the agents, compositions and methods provided herein, a wide variety of inflammatory skin diseases can be readily treated or prevented. For example, within one embodiment of the invention an inflammatory skin disease such as psoriasis or eczema may be treated or prevented by delivering to a site of inflammation (or a. . .

DETD Briefly, skin cells are genetically programmed to follow two possible programs--normal growth or wound healing. In the normal growth pattern, skin cells are created in the basal cell layer and then move up through the epidermis to the skin surface. Dead cells are shed from healthy skin at the same rate new cells are created. The turnover time (i.e., time from cell birth to death) for normal skin cells is approximately 28 days. During wound healing, accelerated growth and repair is triggered resulting in rapid turnover of skin cells (to replace and repair the wound), increased blood supply (to meet the increased metabolic needs associated with growth) and. . .

DETD In many respects, psoriasis is similar to an exaggerated wound healing process. Skin cells (called "keratinocytes") are created and pushed to the skin surface in as little as 2-4 days. The surface skin cannot shed the dead cells fast enough and excessive keratinocytes build up to form elevated, scaly lesions. This growth is. . .

DETD Utilizing the compositions provided above, inflammatory skin lesions may be readily treated. In particular, the anti-microtubule agent is administered directly to the site of inflammation (or a. . .

DETD An effective anti-microtubule therapy for psoriasis will achieve at least one of the following: decrease the number and severity of skin lesions, decrease the frequency or duration of active disease exacerbations, increase the amount of time spent in remission (i.e., periods. . .

DETD Clinically the treatment will result in a reduction in the size or number of skin lesions, diminution of cutaneous symptoms (pain, burning and bleeding of the affected skin) and/or a reduction in associated symptoms (e.g., joint redness, heat, swelling, diarrhea, abdominal pain). Pathologically an anti-microtubule agent will

produce at least one of the following: inhibition of keratinocyte proliferation, reduction of skin inflammation (for example, by impacting on: attraction and growth factors, antigen presentation, production of reactive oxygen species and matrix metalloproteinases),. . .

DETD The anti-microtubule agent can be administered in any manner sufficient to achieve the above end points, but preferred methods include topical and systemic administration. Patients with localized disease can be administered a topical paclitaxel cream, ointment or emollient applied directly to the psoriatic lesions. For example, a topical cream containing 0.001% to 10% paclitaxel by weight can be administered depending upon severity of the disease and the patient's response to treatment. In a preferred embodiment, a topical preparation containing paclitaxel at 0.01% to 1% by weight would be administered to psoriatic lesions. Alternatively, direct intracutaneous injection of. . .

DETD Other conditions can also benefit from topical anti-microtubule agents including: eczematous disease (atopic dermatitis, contact dermatitis, eczema), immunobullous disease, pre-malignant epithelial tumors, basal cell carcinoma, squamous cell carcinoma, keratocanthoma, malignant melanoma and viral warts. Topical creams, ointments, and emollients containing 0.001% to 10% paclitaxel by weight can be suitable for the management of these conditions.

DETD . . . as a "pulse" therapy. In patients with localized rectal disease (the rectum is involved in 95% of ulcerative colitis patients), topical paclitaxel can be administered as a rectal cream or suppository. For example, a topical cream containing 0.001% to 10% paclitaxel by weight can be administered depending upon severity of the disease and the patient's response to treatment. In a preferred embodiment, a topical preparation containing 0.01% to 1% paclitaxel by weight could be administered per rectum daily as needed. Peritubular paclitaxel (i.e., administration. . .

DETD . . . (or intravenously) of 50 to 250 mg/m.sup.2 of paclitaxel can be administered as a "pulse" therapy. In patients undergoing localized topical surgical procedures, topical paclitaxel can be administered as a cream or ointment. For example, a topical cream containing 0.001% to 10% paclitaxel by weight can be administered depending upon the nature of the surgery and the. . .

DETD . . . Biol. Med. 133:544-550, 1970), gauze sponges (Lehman and Boys, Ann. Surg 111:427-435, 1940), toxic chemicals (Chancy, Arch. Surg. 60:1151-1153, 1950), bacteria (Moin et al., Am. J. Med. Sci. 250:675-679, 1965) and feces (Jackson, Surgery 44:507-518, 1958).

DETD . . . also occurs during surgery to correct chronic sinusitis or removal of other regions of chronic inflammation (e.g., foreign bodies, infections (fungal, mycobacterium)).

DETD . . . urinary tract obstructions (e.g. cystitis, urethritis); respiratory tract obstructions (e.g., chronic bronchitis, tuberculosis, other mycobacterial infections (MAI, etc.), anaerobic infections, fungal infections and parasitic infections); and cardiovascular obstructions (e.g., mycotic aneurysms and infective endocarditis).

DETD . . . characteristic lesions result from the deposition of immune complexes and are found in the blood vessels, kidneys, connective tissue and skin. An acute necrotizing vasculitis involving small arteries and arterioles may be present in any tissue although skin and muscles are most commonly affected. In organs affected by small vessel vasculitis, the first lesions are usually characterized

by. . .

DETD . . . factors and host defense systems play a primary role. Disease activity is generally characterized by shifts from host tissue and microorganism homeostasis. Presently, periodontitis can only be diagnosed by the presence of increasing periodontal attachment loss, increasing pocket depth, bone loss. . . tooth loss. Chronic periodontitis can be treated in four stages: systemic (factors such as diabetes mellitus or premedication), initial or hygiene (patient education to eliminate local factors), corrective (periodontal surgery) and maintenance phases (prevention).

DETD . . . can be administered in any manner sufficient to achieve a statistically significant clinical result. However, preferred methods of administration include topical, dental/surgical implant or low-dose systemic. The anti-microtubule agent can be administered as a chronic low dose therapy to prevent disease. . . to 75 mg/m.sup.2 daily, as tolerated, or 10 to 175 mg/m.sup.2 once weekly, as tolerated or until symptoms subside. A topical cream containing 0.001% to 10% paclitaxel by weight can be administered depending upon severity of the disease and the patient's response to treatment. In a preferred embodiment, a topical preparation containing 0.01% to 1% paclitaxel by weight could be administered daily as needed. In a preferred embodiment of a. . .

DETD Selection of Permeation Enhancer for Topical Paclitaxel Formulation

DETD To act effectively, paclitaxel must penetrate the skin to the lower strata of the viable epidermis. It has been established that for drugs to penetrate the viable epidermis,. . .

DETD . . . mg/ml whereas in Transcutol:isopropyl myristate combination the solubility increased to 353.9 mg/ml. Therefore, this enhancer combination was chosen in the skin studies.

DETD Preparation and Analysis of Topical Paclitaxel Formulations

DETD C. Skin Preparation and Penetration Study

DETD Frozen, excised Yucatan mini-pig skin was stored at -70° C. until used. Skin samples were prepared using a no. 10 cork borer to punch disks from the frozen skin. Samples were rinsed with a streptomyocin-penicillin solution and placed into freezer bags and stored at -70° C.

DETD Skin sections were mounted on Franz diffusion cells, stratum comeum side up. The bottom receptor solution was a 0.05% amoxicillin solution in R.O. water. A donor cell was clamped on to each skin surface. The paclitaxel ointment was heated until melted (40 to 50° C.) and drawn into a syringe. While still molten, 0.1 ml was extruded onto each skin surface. The donor cells were covered with a glass disk and the assembly left for 24 hours.

DETD After 24 hours, the cells were disassembled, excess ointment removed and stored in a scintillation vial. The skin surface was quickly washed with 3 ml dichloromethane (DCM) and dried. The wash DCM was stored in the same vial as the excess ointment. The skin sections and the receptor solution were placed into separate scintillation vials. The skin was cryotomed at -30° C. into 30 μm sections and collected in separate vials. The initial shavings and remaining skin were also collected in separate glass vials. The sectioned skin samples were dissolved by adding 0.5 ml of tissue solubilizer to each vial. The samples were left overnight to dissolve. . .

DETD Skin samples were mounted on the Franz diffusion cells and separated into three groups. Each sample was treated accordingly (no

treatment. . .

DETD From the histological sections, the stratum comeum section of untreated skin was found to be between 50 to 120 μm thick while the viable epidermis was between 400 to 700 μm thick. For the ointment which contained 3% w/w isopropyl myristate (ointment A), the concentration of paclitaxel in the skin was essentially constant at 1 μg/ml (1.2+10.sup.-6 M) in the stratum corneum and throughout the viable epidermis. For the ointment. . . was no radioactivity in the receptor solution for each ointment investigation, indicating that paclitaxel did not pass completely through the skin section.

DETD Manufacture of Topical Formulations of Paclitaxel for the Treatment of Psoriasis

DETD . . . be administered via a variety of routes, including, for example, topically. For example, within one embodiment of the invention, a topical formulation for treating psoriasis was manufactured by first separately generating an active phase (containing one or more anti-microtubule agents) and. . .

DETD An anti-microtubule agent (e.g., paclitaxel) was incorporated into the topical gel as follows. The active phase was produced by initially mixing 250 g ethoxydiglycol with 500 mg methylparaben and 250. . .

DETD . . . were able to weight bear and ambulate and demonstrated few, if any toxic effects of the treatment. Wound healing and hair regrowth at the vaccination site was observed in treated animals. Paclitaxel-treated animals gained weight relative to controls.

DETD . . . were able to bear weight and ambulate and did not show any toxic effects of the treatment. Wound healing and hair regrowth at the vaccination site was observed in treated animals. Micellar paclitaxel-treated animals gained weight relative to untreated controls. Animals. . .

DETD A. Skin Angiogenesis Model

DETD A novel animal model is used to investigate skin-specific angiogenesis. Immunodeficient SCID mice are used as recipients for surface transplants of human keratinocyte lines transfected with vascular endothelial growth. . . factor (VEGF) in sense or antisense orientation. Keratinocytes are transplanted via use of modified silicone transplantation chamber assay onto the skin of recipient mice. Keratinocytes are allowed to differentiate and to induce skin angiogenesis. Paclitaxel is then given either systemically or topically (cream, ointment, lotion, gel), and morphometric measurements of vessel numbers and. . .

DETD The mouse model for cutaneous delayed type hypersensitivity reactions was used to investigate the effects of paclitaxel on induced skin inflammation. Briefly, mice were sensitized to oxazolone by topical application of the compound onto the skin. Five days later, mice were challenged with oxazolone by topical application onto the ear skin (left ear: oxazolone, right ear: vehicle alone), resulting in a cutaneous inflammatory, "delayed-type hypersensitivity" reaction. The extent of inflammation was. . .

DETD These studies have shown that topical administration of 1% paclitaxel versus vehicle alone in the treatment of experimentally-induced skin inflammation in mice revealed that paclitaxel exerts inhibitory effects on skin inflammation. In experimentally-induced delayed-type hypersensitivity reactions, there was a significant decrease in ear swelling in the ears treated topically with 1% paclitaxel versus vehicle alone. Topical application

of 1% paclitaxel formulation significantly inhibited ear swelling and skin erythema (redness) induced by topical application of PMA (phorbol 12-myristol 13-acetate) (see FIGS. 71 and 72). As illustrated in FIG. 73, the paclitaxel treated ear. . .

DETD To assess the skin irritation of 1% paclitaxel versus vehicle alone, application of these two formulations were applied daily at 20 μl to each side of the ears for 8 days. After 8 days, there was no detection of skin irritation after application of either vehicle alone or 1% paclitaxel formulation onto normal or inflamed mouse ear skin.

DETD In addition, these investigations can be further extended to include other organ transplants as well as graft transplants (e.g., vein, skin).

DETD Tissue handling--Normal nasal mucosal (NM) specimens are obtained from patients with no clinical evidence of rhinitis and negative skin-prick test during nasal reconstructive surgery. Nasal polyp (NP) specimens are obtained from patients with positive and negative skin-prick test undergoing nasal polypectomy. The nasal specimens are placed in Ham's F12 medium supplemented with 100 UI/ml penicillin, 100 μg/ml. . .

DETD . . . they were then placed under Halothane anesthesia. After general anesthesia was established, fur over the neck region was shaved, the skin clamped and swabbed with betadine. A vertical incision was made over the left carotid artery and the external carotid artery. . .

DETD . . . of Reproductive Medicine, 37:766-770), with hemostasis. New Zealand female white rabbits were anesthetized and a midline incision made through the skin and the abdominal wall. Both uterine horns were located and exteriorized. Using a French Catheter Scale, the diameter of each. . .

DETD Clinical Study to Assess the Safety and Tolerability of Topical Paclitaxel Gel for the Treatment of Psoriasis

DETD . . . the study. Twenty patients will be randomized to receive two of the following gel formulations: (i) control gel, (ii) 0.01% topical paclitaxel gel, (iii) 0.1% topical paclitaxel gel, or (iv) 1% topical paclitaxel gel. Two well-defined psoriatic plaques measuring at least 5 cm in diameter will be identified on each patient for. . .

DETD . . . the patient. The patient will then be instructed on how to apply the gel to the psoriatic lesion. Before the topical study gel is applied to the psoriatic plaques, both psoriatic lesions will be photographed.

DETD The patient's sun exposure should be limited during the entire study and psoriatic areas being treated with the topical study gel shall not be exposed to direct sunlight during the study. Patients must be instructed not to use any other emollients, creams, ointments or gels on the psoriatic lesions being treated with the topical study gel. In addition, patients must be instructed to apply the gel to the same psoriatic lesion every 12 hours during the treatment phase of the study. When the patient applies the topical study gel to the psoriatic lesion, the area should not be covered with dressings or articles of clothing until the. . .

DETD . . . or approved therapy for investigational use, with retinoids or any other systemic immunosuppressant agent at any time during study participation. Topical emollients, creams, ointments and gels must not be used on the psoriatic lesions being treated with the topical study gel. Topical corticosteroids, including keratolytics, coal tar, calcipotriol, must not be used on any psoriatic

lesions during the treatment phase of the study, unless permitted by the investigator and Angiotech (e.g., less frequent applications of topical corticosteroids could be used for maintenance treatment of extreme itching, burning or stinging of psoriatic lesions not treated with the topical study gel).
DETD The pre-enrollment visit will occur at least one week prior to the first topical gel application. The study objectives and procedures will be explained during the visit and each patient will sign the Informed. . .
DETD (iii) Target Skin Lesion Assessment; and
DETD . . . contraceptives. Patients must have normal renal function, hematologic function within normal range and normal serum electrolytes. No other underlying active skin disease may be present at the test site at the time of administration.
DETD . . . they must not be enrolled in this study. Patients must not have received oral prednisone >25mg (or its equivalent), or topical corticosteroids, including keratolytics, coal tar or calcipotriol within two weeks prior to applying the first dose of the topical study gel. Patients will be excused if they received treatment with UV therapy within two weeks of receiving first dose of topical study gel, or anticipate need for UV therapy during study participation.
DETD . . . immunologic, metabolic, urologic, pulmonary, neurologic, psychiatric and/or any other major disease (other than psoriasis) will not be able to receive topical paclitaxel gel, as well as those that are diagnosed with erythrodermic, guttate, palmar, or plantar pustular, or generalized pustular psoriasis.. . .
IT 106392-12-5, Pluronic L101
(Pluronic L101 and Pluronic F127; anti-microtubule agents for treating multiple sclerosis and other inflammatory diseases, and pharmaceutical compns.)

L42 ANSWER 28 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2002:265507 USPATFULL		
TITLE:	CONTROLLED DELIVERY SYSTEM FOR HAIR CARE PRODUCTS		
INVENTOR(S):	Shefer, Adi, East Brunswick, NJ, UNITED STATES Shefer, Shmuel David, East Brunswick, NJ, UNITED STATES		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002146379	A1	20021010
	US 6491902	B2	20021210
APPLICATION INFO.:	US 2001-771752	A1	20010129 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Diane Dunn McKay, Mathews, Collins, Shepherd & Gould, A.P., 100 Thanet Circle, Suite 306, Princeton, NJ, 08540		
NUMBER OF CLAIMS:	32		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Page(s)		
LINE COUNT:	1467		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI CONTROLLED DELIVERY SYSTEM FOR HAIR CARE PRODUCTS
AB The present invention is a controlled delivery system that can be incorporated in hair care products such as shampoos, conditioners, hair styling products, and other hair

care products to effectively deliver a broad range of active agents and sensory markers, such as fragrances or cooling agents onto the hair. The system also prolongs the release rate of the active agents or sensory markers over an extended period of time,. . . or provides heat triggered release of the active agents and yields a high impact fragrance "burst" upon blow drying the hair or other types of heat treatment. The controlled delivery system of the present invention is a nano-particle, having an average. . . polymers and co-polymers, cationic charge boosters in conjunction with cationic surface-active conditioning agents that assist in adhering the particles onto hair. The invention further relates to a controlled delivery system where the release rate of the active ingredients is synchronized with. . .

SUMM [0002] The present invention relates to a controlled delivery system that can be incorporated into hair care products such as shampoos, conditioners, hair styling products, and other hair care products and that effectively delivers a broad range of active ingredients and sensory markers onto hair, prolongs their release rate over an extended period of time, or provides heat triggered release and high impact fragrance "burst" upon blow drying the hair. The present invention also introduces a novel concept of synchronizing the release of the active ingredients with that of a. . .

SUMM [0004] Consumers are becoming increasingly educated and expect a high level of sophistication and multi functionality in their hair care products. They expect the product not only to clean, but also condition, nourish, and provide a lasting impression of clean hair and freshness. Consumer acceptance of hair care products is determined not only by the performance achieved with these products but the perception and aesthetics associated therewith. There is also a need to convey to the consumer the product performance and effectiveness (i.e., the hair is clean, the hair is being conditioned and nourished, etc.). Fragrance is an important aspect of the successful hair care products and they can also be utilized, in addition to imparting an aesthetically pleasing odor, to convey the consumer. . .

SUMM [0005] Fragrance creation for hair care products is restricted not only by considerations such as availability and cost, but also by compatibility of the fragrance ingredients with other components in the product composition and the ability of the fragrance ingredients to deposit onto the hair and survive the wash and rinse process. Furthermore, a large amount of fragrance is often lost during the rinse and drying processes, even when the hair is air-dried. Practice has shown that when current commercial hair care products are used, very little of the fragrance is actually substantive onto the hair.

SUMM . . . the prior art indicate attempts to fulfill the foregoing needs to increase the deposition of active ingredients and fragrances onto hair and to hinder or delay their release rate so that the hair is healthier and remains aesthetically pleasing for a prolonged length of time.

SUMM . . . conventional approach that has been described employs emulsions, liposomes, and other lipid vesicles to deposit the active ingredients onto the hair. See U.S. Pat. Nos. 4,942,038; 5,124,081; 5,198,470; 5,330,758; 5,510,120; 5,518,736; 5,591,449; 5,658,575; 5,660,853; 5,741,518; 5,753,241; 5,759,526; 5,773,611; 5,814,343; 5,874,105; 5,885,564;. . .

SUMM [0009] U.S. Pat. No. 5,599,531 discloses the uses of inorganic charged colloidal silica as a carrier system for hair care products. The penetration or absorption of water, oils, collagen, and other materials into the hair is greatly increased by adding a small quantity of inorganic charged colloidal silica to provide an aqueous suspension of the charged colloidal silica particles along with the material to be absorbed into the hair. In coloring hair, dye components can be absorbed into the hair without the use of alkaline solutions which damage the hair, and in perming hair, the disulfide bonds in the hair can be broken by tension caused by swelling due to water absorption in the hair, again without the use of damaging alkaline solutions. It is believed that the porosity and stable hydration of the hair can be varied through altering the electrostatic charge on the hair. The aqueous suspension of charged silica particles applied to the hair appears to alter this charge.

SUMM . . . an aqueous suspension of solid lipoid nanoparticles, comprising at least one lipid and preferably also at least one emulsifier, for topical application to the body. The nano-particles disclosed are preferably non-ionic and the emulsifiers used in the processing of these particles. . .

SUMM . . . in a non-aqueous medium. A dispersion of surface-stabilized polymer particles can be used in a non-aqueous medium, in a cosmetic, hygiene or pharmaceutical composition. The dispersions may, in particular, be in the form of nano-particles of polymers in stable dispersion in. . .

SUMM . . . nanocapsules, provided with a lamellar coating obtained from a silicone surfactant, can be used in a composition, in particular a topical composition, for treatment of the skin, mucosae, nails, scalp and/or hair. Nanoparticles ranging in size from 10 to 1000 nm are composed of a polymer encapsulating an oily phase and coated. . .

SUMM . . . 6,042,792 discloses a controlled, time-release microparticulate active and bioactive compositions (including perfuming compositions) for targeted delivery to services such as skin, hair and fabric and the environment proximate thereto, where the active and bioactive materials have a calculated log P values of. . .

SUMM [0017] U.S. Pat. No. 6,048,520 discloses a transparent leave-on hair treatment composition including capsules of a water insoluble hair-treating compound encased in a shell material, such as gelatin or acacia gum. The capsules have a diameter of about 425 to about 2800 microns and are broken during application of the hair treatment composition to hair or by combing the hair after application of the hair treatment composition. The aqueous leave-on composition is applied to the hair and the water insoluble hair-treating compound is released from the capsules to treat the hair. The shell disintegrates into sufficiently small residual particles such that the physical and esthetic properties of the hair, like shine and combability, are retained.

SUMM [0020] Similar phenomena were also observed for hair care products. U.S. Pat. No. 3,980,091 discloses that the pretreatment of hair on the human head, preceding shampooing the hair with anionic type hair shampoos, and with compositions for effecting such pretreatment, to obtain highly improved manageability of the hair after shampooing and with improved fullness, combability and other desired properties of the hair. The

pretreatment compositions utilize readily water-soluble quaternary ammonium compounds, particularly in combination with certain agents, notably polyethylenimines and N-ethanolacetamide, and. . .

SUMM [0021] The prior art of which applicant is aware does not set forth a controlled delivery system for hair care products that is highly substantive onto hair, sustain the release rate of active ingredients and a sensory marker or provide heat triggered release of the active agents and high impact fragrance "burst" upon blow drying the hair.

SUMM [0022] The present invention relates to an improved controlled delivery system for hair care products, such as, shampoo, conditioner, hair styling products, and other hair care products, comprising nano-particles formed of hydrophobic polymers and copolymers in combination with cationic charge booster and cationic conditioning agents to improve the system deposition onto hair. The nano particles of the present invention can include active ingredients and sensory markers.

SUMM [0024] The nano-particles of the present invention have an improved mechanism to enhance the deposition of the particles onto hair . The highly cationic charge density characterizing the nano-particles of the present invention, achieved by the use of cationic conditioning agents in conjunction with cationic charge booster improves the deposition of these particles onto the hair and prevents them from being washed off during the rinse process. The nano-particles of the present invention are believed to attach to the hair surfaces via a complexing interaction between the cationic charge group on the particles and the proteinaceous portion of the hair and thus predispose or condition the surface of the hair so that the nano-particles will then adhere to the surface.

SUMM [0025] In one embodiment, the present invention provides an improved controlled delivery system for hair care products, that improves the substantivity of active ingredients and sensory markers onto hair by means of bringing the particles onto the hair through treating the hair with hair care products comprising the nano-particles of the present invention. In the hair care industry, the term "substantivity" refers to the deposition of the active ingredients or sensory markers (i.e., fragrance) on the hair and the retention and perception of the fragrance on surfaces treated with hair care product. Particles comprising cationic charge boosters and the cationic conditioning agents either in the particle composition, or at the particles outer surface, were observed to be highly substantive on surfaces such as skin, hair, and fabric.

SUMM [0026] The delivery system of the present invention enhances the deposition of active agents and sensory markers onto hair, prolongs their release rate over an extended period of time, or release them upon heat treatment such as blow drying the hair. In addition, the release rate of the active agents is synchronized with that of a sensory marker (i.e., fragrance) to. . .

SUMM . . . through the use of cationic charge boosters in conjunction with cationic conditioning agents enhances the adhesion of the particles onto hair. In addition, by incorporating cationic surface-active agents into the nano-particles composition, the system provides improved compatibility of a wide range. . . agents and sensory markers in the delivery system, and increases the substantivity of actives that are currently not substantive on hair.

SUMM [0031] (ii) enhanced deposition of the active ingredients and sensory

markers onto hair;

SUMM [0034] (v) heat triggered release of the active ingredients and high impact fragrance "burst" upon blow drying the hair.

SUMM . . . cationic charge booster in conjunction with the cationic conditioning agents in the particles surface becomes associated, in use, with the hair and assist in adhering the particles onto hair through both particle entrainment and electrostatic interactions. The highly cationic charge density of the nano-particles, achieved by the use of cationic conditioning agents in conjunction with cationic charge booster, improves the deposition of these particles onto the hair and prevents them from being washed off during the rinse process. The nano-particles are believed to attach to the hair surfaces via a complexing interaction between the cationic charge group on the particles and the proteinaceous portion of the hair and thus predispose or condition the surface of the hair so that the nano-particles will then adhere to the surface. The hydrophobic polymers and copolymers sustain the diffusion rate of. . . active ingredients and sensory markers over an extended period of time, or during heat treatment such as blow drying the hair.

SUMM [0044] Hair treated with hair care products, such as shampoo, conditioners, and the like, comprising the nano-particles of the present invention were observed to exhibit. . . level of fragrance (high odor intensity) in both the wet and the dry state and fragrance perception on the dry hair has been observed over an extended period of time up to about 24 hours.

SUMM [0045] The present invention also provides a cost effective controlled delivery system that improves fragrance performance from hair care products.

SUMM [0046] The invention still further provides hair care products such as shampoo, conditioner, hair styling products, and other hair care products, comprising the nano-particles of the present invention.

DRWD [0048] FIG. 1 is a scanning electron microscopy image of hair, treated with a shampoo comprising the nano-particle of the present invention, magnified 7500 times.

DRWD [0049] FIG. 2 is a scanning electron microscopy image of hair, treated with a conditioner comprising the nano-particle of the present invention, magnified 7500 times.

DRWD [0050] FIG. 3 is a scanning electron microscopy image of hair, treated with a conditioner comprising the nano-particle of the present invention, magnified 10,000 times.

DETD [0052] The present invention features a method of controlling the release rate of fragrance that can be incorporated in a hair care product, over an extended period of time, or yields a high impact fragrance "burst" upon heat treatment such as blow drying the hair. Heat activation is defined as some change that is mediated by use of the composition of the invention with heat,. . . from styling appliances such as a blow dryer, curling iron, hot curler, hot brush, hot comb, hot rollers, crimper, or hair dryer. From internal testing of various appliances this average temperature can range on the "hot" setting to be between 50. . . .

DETD . . . in the range from about 0.01 microns to about 1 micron, and particles within this range are efficiently entrained on hair. This linear dimension for any individual particle represents the length of the longest straight line joining two points on the. . .

DETD . . . and from about 1% to about 70% by weight sensory markers. The nano-particles can be incorporated into any type of hair care

products, preferably in shampoo and conditioning compositions.

DETD [0086] The carrier system of the present invention can comprise any of the cationic hair conditioning agents known in the art. The conditioning agents can include imidazolinium. Other quaternary ammonium salt hair conditioning compounds suitable for use are described in "Cationic Surfactants", Surfactant Science series, Vol. 34, edited by Richmond J. M.,. . .

DETD [0087] Cationic conditioning agents of the present invention, are believed to attach to hair via a complexing interaction between the cationic portion of the cationic conditioning agent and the proteinaceous portion of the hair and thus predispose or condition the surface of the hair so that the nano-particles will then adhere to the surface. Surface active materials that are capable of strong bonding to the negatively charged and hydrophilic surfaces of hair include various straight-chain alkylammonium compounds, cyclic alkylammonium compounds, petroleum derived cationics, and polymeric cationic materials. A preferred cationic conditioning agent. . . commercially available from Stepan, and polyquaterium-24 (Quatrisoft polymer LM-200, from Amerchol Corporation, Edison, N.J.). It was found to adhere to skin and hair. The cationic conditioning agents also stabilize the outer surface of the hydrophobic core component of the nano-particles, thereby promoting a. . .

DETD [0089] One group of cationic conditioning agents useful for enhancing the deposition of the nano-particles of the present invention onto hair are quaternary ammonium compounds. Quaternary ammonium salts useful herein also include dialkyldimethylammonium chlorides wherein the allkyl groups have from 12. . .

DETD [0094] Another preferred group of compounds of cationic conditioning agents useful for enhancing deposition of nano-particles onto the hair include a class of surface-active quaternary ammonium compounds in which the nitrogen atom carrying the cationic charge is part of. . .

DETD . . . the present invention are selected from the group of polyquaternium 32, polyquaternium 3, cocodimonium hydroxypropyl hydrolyzed collagen, cocodimonium hydroxypropyl hydrolyzed hair keratin, cocodimonium hydroxypropyl hydrolyzed hair keratin, cocodimonium hydroxypropyl hydrolyzed keratin, cocodimonium hydroxypropyl hydrolyzed wheat protein, cocodimonium hydroxypropyl oxyethyl cellulose, guar hydroxypropyltrimonium chloride, lauryldimonium hydroxypropyl hydrolyzed. . .

DETD . . . and miscible with the active agents or fragrance composition used in the present invention and harmless or beneficial to the hair when dispersed and melted on to them. Preferably, the matrix material provides barrier properties to the active agents and the. . .

DETD . . . agents, anti-inflammatory agents, refreshing agents, melanoregulators, liporegulators, antiseborrhoeic agents, anti-ageing agents, keratolytic agents, antibacterial agents, anti-dandruff agents, agents for combating hair loss, hair dyes, hair bleaches, reducing agents for permanent waves, hair conditioners and nutrients, cicatrizing agents, vascular protectors, antibacterial agents, anti fungal agents, skin conditioners, immunomodulators, nutrients and essential oils, retinoids, anesthetics, surfactants, emulsifiers, stabilizers, preservatives, antiseptics, emollients, lubricants, humectants, analgesics, enzymes, pigments, dyes,. . .

DETD . . . which can be administered in the delivery system of the present

invention include but are in no way limited to anti-bacterial agents such as thimerosal, chloramine, boric acid, phenol, iodoform, chlorhexidine and other oral antiseptics, beta-lactam antibiotics, for example cefoxitin, n-formamidoyl. . .

DETD [0165] VII. Particle Adhesion onto Hair

DETD [0166] The substantivity of the nano-particles of the present invention was determined by examining hair samples treated with hair care products comprising the nano-particles of the present invention under a scanning electron microscope (SEM). The substantivity of the nano-particles of example 1 onto hair, from a shampoo application is shown in FIG. 1. FIG. 1 illustrates scanning electron microscopy image of hair, treated with a shampoo comprising the nano-particle of the present invention, magnified 7500 times. The substantivity of the nano-particles of example 2 onto hair, from a conditioner application is shown in FIG. 2 and FIG. 3. FIG. 2 illustrates a scanning electron microscopy image of hair, treated with a conditioner comprising the nano-particle of the present invention, magnified 7500 times. FIG. 3 illustrates a scanning electron microscopy image of hair, treated with a conditioner comprising the nano-particle of the present invention, magnified 10,000 times.

DETD [0168] The fragrance used in the following examples is a fragrance composition that is not substantive on hair when used as neat oil. The fragrance composition used is as follows:

Perfume Composition	Component (% Wt.)
Geraniol. . .	

DETD [0179] The nano particles obtained were incorporated into a shampoo base (Example 3). Hair swatches were washed with the shampoo comprising the nano particles of the present invention. The hair swatches were left to air dry for 24 hours and the ability of the nano particles to adhere to hair was determined by SEM. The results, shown in FIG. 1, clearly demonstrate that the nano-particles deposit and adhere onto hair and are not washed off during the rinse process.

DETD [0188] The nano particles obtained were incorporated into a conditioner base (Example 3). Hair swatches were washed with the conditioner comprising the nano particles of the present invention. The hair swatches were left to air dry for 24 hours and the ability of the nano particles to adhere to hair was determined by SEM. The results, shown in FIG. 2 and FIG. 3, clearly demonstrate that the nano-particles deposit and adhere onto hair and are not washed off during the rinse process.

DETD . . . extend the release of active agents and sensory markers (menthol) was determined by evaluating the menthol odor intensity retained on hair washed with a shampoo composition comprising the nano particles of example 1.

DETD [0192] Four hair swatches were washed with the shampoo sample comprising the nano-particles of Example 1 and four hair swatches were washed with the control sample comprising the neat menthol.

DETD [0193] Two of the hair swatches in each experimental set (two washed with the shampoo comprising the nano-particles and two washed with the control sample). . . dryer. The intensity of the menthol

retained on the wet swatches and the odor emitted 1 minute after drying the hair with a blow dryer was evaluated using a scale of 1 to 10, where 1 measures a low odor intensity. . . subjective determination and therefore needs to be determined by a panel of trained odor evaluator. According to the procedure, the hair swatches tested were provided to a panel of six odor evaluators who independently rank odor intensity retained on the wet hair swatches and in the proximate environment, 1 minute after blow drying the hair . The odor evaluation results were as follow:

	Wet Hair	One Minute After Blow-Drying
Neat Menthol (Control)	3	4
Menthol in Nano Particles	5	8

DETD [0194] These results show that the hair swatches washed with the control samples, comprising the neat menthol, had very low odor intensity. The hair swatches washed with the shampoo comprising the menthol in the nano particles had higher odor intensity. Thus, the nano particles of the present invention adhere to hair and can be utilize to deposit higher level of fragrance onto hair. Only the hair swatches washed with the shampoo comprising the nano-particles provided high impact menthol "burst" upon blow drying the hair. Thus, the nano particles of the present invention have the ability to provide heat triggered release of the active agents and yield high impact odor "burst" upon blow drying the hair or other type of heat treatment.

DETD [0195] The other four hair swatches (washed with the shampoo comprising the nano-particles and the control sample) were air-dried and odor intensity of the menthol. . . was evaluated after one hour and after 8 hours using the same scale as above. According to the procedure, the hair swatches to be tested were provided to a panel of six odor evaluators who independently rank odor intensity retained on the hair swatches. The odor evaluation results after one hour and after 8 hours, on the dry hair swatches were as follow:

	Neat Menthol (Control)	Menthol in Nano Particles
One Hour	4	2
8 Hours	4	1

DETD [0196] These results show that the hair swatches washed with the control samples, comprising the neat menthol, had very low odor intensity. The hair swatches washed with the shampoo comprising the menthol in the nano particles had higher odor intensity. Thus, the nano particles of the present invention adhere to hair and can be utilize to deposit higher level of fragrance onto hair. Odor intensity of the hair swatches washed with the shampoo comprising the fragrance in the nano particles, after 8 hours, was significantly higher than that of the swatches washed with these products comprising the neat menthol. Also, Odor intensity of the hair swatches washed with the shampoo comprising the menthol in the nano particles, remain the same after as after one hour.. . .

DETD . . . the release of active agents and sensory markers (i.e., a fragrance) was determined by evaluating the odor intensity retained on

hair washed with a hair conditioner composition comprising the nano particles of example 2.

DETD . . . conditioner base (40% Jeequat ASP, product of JEEN International Corporation, of Little Fall, N.J. and 60% water) to create a hair conditioner sample containing 1.5% fragrance. A control sample was created by admixing 1.5 grams of the neat fragrance with the. . .

DETD [0200] Two hair swatches were washed with the conditioner sample comprising the nano particles of Example II and two hair swatches were washed with the control sample comprising the neat fragrance. The hair swatches were air dried and odor intensity of the fragrance retained on the dry swatches was evaluated after one hour and after 24 hours. Odor perception is, by its nature, a very subjective determination. According to the procedure, the hair swatches to be tested were provided to a panel of six odor evaluators who independently rank odor intensity retained on the hair swatches using a scale of 1 (neutral, low odor intensity) to 10 (high, pleasant, odor intensity). The odor evaluation results after one hour and after 24 hours, on the dry hair swatches were as follow:

	Neat Fragrance (Control)	Fragrance in Nano Particles
One Hour	5	7
24 Hours	3	8

DETD [0201] These results show that the hair swatches washed with the control samples, comprising the neat fragrance, had very low odor intensity. The hair swatches washed with the conditioner comprising the fragrance in the nano particles had higher odor intensity. Thus, the nano particles of the present invention are adhere to hair and can be utilize to deposit higher level of fragrance onto hair. Odor intensity of the hair swatches washed with the conditioner comprising the fragrance in the nano particles, after 24 hours, was significantly higher than that of the swatches washed with these products comprising the neat fragrance. Also, Odor intensity of the hair swatches washed with the conditioner comprising the fragrance contained in the nano particles, was almost as high as their odor. . .

CLM What is claimed is:

1. A controlled delivery system for topical application to hair comprising: a solid particle comprising an active agent, a cationic charge booster and a cationic conditioning agent.

. . . agents, anti-inflammatory agents, refreshing agents, melanoregulators, liporegulators, antiseborrhoeic agents, anti-ageing agents, keratolytic agents, antibacterial agents, anti-dandruff agents, agents for combating hair loss, hair dyes, hair bleaches, reducing agents for permanent waves, hair conditioners, nutrients, cicatrizing agents, vascular protectors, antibacterial agents, anti fungal agents, skin conditioners, immunomodulators, nutrients, oils, retinoids, anesthetics, surfactants, emulsifiers, stabilizers, preservatives, antiseptics, emollients, lubricants, humectants, anesthetics, analgesics, enzymes, pigments, dyes, hydroxy. . .

26. A method of producing a controlled release system for topical application to hair comprising the steps of:

heating a matrix material of a hydrophobic polymer to a temperature above the material melting point;. . .
28. A hair care product comprising the system of claim 1.

29. The hair care product of claim 28 is selected from the group consisting of: shampoo, conditioners and hair styling products.

30. The hair care product of claim 29 where the release of said active agent is activated by heat treatment of the hair.
31. The hair care product of claim 29 further comprising a sensory marker.

32. The hair care product of claim 31 wherein the release of said active agent is activated by heat treatment of the hair.
IT 57-11-4, Stearic acid, biological studies 112-02-7, Cetyl trimethylammonium chloride 1406-18-4, Vitamin E 9002-88-4, Polyethylene 9002-98-6 9004-61-9, Hyaluronic acid 9004-61-9D, Hyaluronic acid, salts 9004-87-9, Polyoxyethylene isooctylphenyl ether 9005-64-5, Tween 20 9010-77-9, Acrylic acid-ethylene copolymer 9016-45-9, Polyoxyethylene nonylphenyl ether 9044-03-5D, Isooctylphenol-formaldehyde polymer, polyethoxylated 24937-78-8, Ethylene-vinyl acetate copolymer 25322-68-3D, Polyethylene glycol, fatty acid esters and fatty alc. ethers 26336-38-9, Polyvinylamine 62229-50-9, Epidermal growth factor 98616-25-2, Polyquaternium 24 106392-12-5, Poloxamer 173833-36-8, Quaternium 82 220828-91-1, Incroquat Behenyl HE
(polymer-based controlled delivery system for hair care products)

L42 ANSWER 29 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2002:220969 USPATFULL		
TITLE:	Treatment of mucositis		
INVENTOR(S):	Rosenthal, Gary J., Louisville, CO, UNITED STATES Etter, Jeffrey B., Boulder, CO, UNITED STATES Rodell, Timothy C., Aspen, CO, UNITED STATES Schauer, Wren H., Boulder, CO, UNITED STATES Samaniego, Adrian, Louisville, CO, UNITED STATES		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002119104	A1	20020829
	US 6685917	B2	20040203
APPLICATION INFO.:	US 2001-993383	A1	20011121 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-721516, filed on 22 Nov 2000, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MARSH, FISCHMANN & BREYFOGLE LLP, 3151 SOUTH VAUGHN WAY, SUITE 411, AURORA, CO, 80014		
NUMBER OF CLAIMS:	132		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	1595		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
SUMM [0003] Mucositis is a serious and often very painful disorder involving inflammation of the mucous membrane, with the inflammation often accompanied by infection and/or ulceration. Mucositis

can occur at any of the different mucosal sites in. . .
SUMM . . . the epithelial phase, is signaled by atrophy and ulceration of the mucosal epithelium. The third phase is defined as the ulcerative/ bacterial phase represented by ulcerative lesions that are prone to bacterial infection further compromising the patients' immune system. These painful lesions often limit a patient's ability to eat and drink and. . . radiation treatments. The last phase, the healing phase, is characterized by a proliferation and differentiation of epithelium as well as bacterial control.
SUMM [0006] Routine oral hygiene is extremely important in reducing the incidence and severity of mucositis. Oral hygiene methods include rinsing/irrigation and mechanical plaque removal. Although not entirely supported by controlled clinical trials, allopurinol mouthwash and vitamin E have been cited as agents that may decrease the severity of mucositis. Prophylaxis against fungal infections is commonly employed in an effort to treat oral mucositis and includes use of topical antifungal agents such as nystatin-containing mouthwashes and clotrimazole troches. Although topical antifungal prophylaxis and treatment may clear superficial oropharyngeal infections, topical agents tend not to be well absorbed and have not been demonstrated to be effective against more deeply invasive fungal infections, which typically involve the esophagus and lower gastrointestinal tract. For this reason, systemic agents are indicated for treating all except superficial fungal infections in the oral cavity.
SUMM [0008] Chlorhexidine is a broad spectrum antimicrobial with activity against gram-positive and gram-negative organisms, yeast, and other fungal organisms. It also has the desirable properties of sustained binding to oral surfaces and minimal gastrointestinal (GI) absorption, thereby limiting. . .
DETD . . . or prolonged and sustained action, of the oral mucositis therapeutic, thereby improving the efficacy of the oral mucositis therapeutic upon topical application to mucosal surfaces, a route that may otherwise be an ineffective means of therapy. Furthermore, the delivery system may. . .
DETD . . . be stable under the conditions of manufacture and storage and preferably preserved against the contaminating action of microorganisms such as bacteria and fungi. The carrier liquid can be a solvent of dispersion medium containing, for example, water, ethanol, polyol (e.g., glycerol, propylene glycol,. . .
IT 62-56-6D, Thiourea, derivs. 69-72-7D, Salicylic acid, esters 77-92-9, Citric acid, biological studies 532-32-1, Sodium benzoate 541-15-1D, Carnitine, aryl derivs. 629-25-4, Sodium laurate 638-23-3 1002-62-6, Sodium caprate 1115-84-0, Methylmethionine sulfonium chloride 1984-06-1, Sodium caprylate 2508-76-1, Sodium glycyrrhetinate 7421-40-1, Glycyrrhetinic acid hydrogen succinate disodium salt 9004-34-6D, Cellulose, derivs. 9012-76-4, Chitosan 9012-76-4D, Chitosan, derivs. 19771-63-2, Procysteine 21593-77-1, S-Allyl-cysteine 57828-26-9, Lipoic acid 68797-35-3, Dipotassium glycyrrhizinate 106392-12-5, Poloxamer
(polymer-based compns. for treatment of mucositis)

L42 ANSWER 30 OF 39 USPATFULL on STN
ACCESSION NUMBER: 2002:115767 USPATFULL
TITLE: Nonalcoholic pharmaceutical preparations from formulations including alcohol and process for the preparation thereof

INVENTOR(S): Gangarosa, Sr., Louis P., 3304 Somerset Pl., Augusta, GA, United States 30909-3136

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6391284	B1	20020521
APPLICATION INFO.:	US 2001-871466		20010531 (9)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Henley, III, Raymond
LEGAL REPRESENTATIVE: Welsh & Katz, Ltd.
NUMBER OF CLAIMS: 39
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT: 474
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB . . . reduced alcoholic preparation prepared by the distillation process is useful for preparing, inter alia, products which may vary from oral hygiene products such as mouthwashes, toothpaste and oral rinses, to skin care products.

SUMM . . . and physically stable pharmaceutical composition. Particularly for example, in mouthwashes, oral rinses, and other pharmaceutical preparation used in maintaining oral hygiene, the use of alcohol is believed to be essential for solubilization of the components of the formulation. Without the ability. . .

SUMM . . . with non-beverage alcohol can trigger setbacks in recovering alcoholics. Therefore, a substantially nonalcoholic aqueous pharmaceutical preparation used in maintaining oral hygiene is desirable, inter alia, for the safety of those individuals who cannot or should not use an oral aqueous pharmaceutical. . .

SUMM . . . a pharmaceutical composition that effectively maintains its chemical and physical stability, yet does not contain alcohol. In cases of oral hygiene compositions, the art has been unable to successfully produce an oral composition by a simple and economical process that results in an alcohol free preparation that still effectively eliminates bacteria. Some antimicrobial compositions contain a reduced amount of alcohol in the presence of flavoring oils and surfactants, while others have. . .

SUMM . . . of distillation resulting in the production of an effective mouthwash, oral rinse and other pharmaceutical preparation used in maintaining oral hygiene. Further, the process can be used to prepare aqueous, substantially non-alcoholic preparation of active ingredients that normally are soluble in. . .

SUMM . . . preparations in the formulation to be distilled in accordance with the invention to obtain a nonalcoholic product for mouth and skin use. Typically, in the process the stabilizing solution is used to dissolve a pharmaceutical compound thereby, forming an aqueous-alcoholic pharmaceutical. . .

SUMM . . . process of the present invention can be used on pharmaceutical compositions including but not limited to cosmetic products, such as skin care products, mouthwashes, toothpaste and tooth cleaning gels, and oral rinses marketed to maintain oral hygiene, control plaque, treat oral ulcers and sore throats.

DETD Cis-retinoic acid is usually used as a topical acne treatment which is supplied by drug manufacturers in an ointment or solution form containing methanol and other solubilizing substances. . .

CLM What is claimed is:

10. A process according to claim 1, wherein said substantially non-alcoholic aqueous composition includes a pharmacological active oral hygiene agent and is useful as an oral hygiene composition.

32. A process according to claim 27, wherein said reduced alcoholic aqueous composition includes a pharmacological active oral hygiene agent and is useful as an oral hygiene composition.

IT 50-70-4, Sorbitol, biological studies 56-81-5, Glycerin, biological studies 108-95-2, Phenol, biological studies 97950-17-9, Cis-Retinoic acid 106392-12-5, Pluronic
(preparation of nonalcoholic cosmetic prepns. formulated in presence of alc.)

L42 ANSWER 31 OF 39 USPATFULL on STN
ACCESSION NUMBER: 2001:229221 USPATFULL
TITLE: Use of compounds which make it possible to modify the physicochemical properties of the skin and/or the mucous membranes as agents preventing or reducing the adhesion of microorganisms to the latter
INVENTOR(S): Cupferman, Sylvie, L'Hay Les Roses, France
Lerebour, Geraldine, Athis-Mons, France
Guillou, Veronique, Antony, France
Simon, Pascal, Vitry Sur Seine, France

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001051170	A1	20011213
APPLICATION INFO.:	US 2001-782521	A1	20010214 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	FR 2000-1841	20000215

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: NIXON & VANDERHYE P.C., 8th Floor, 1100 North Glebe Road, Arlington, VA, 22201
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
LINE COUNT: 434
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Use of compounds which make it possible to modify the physicochemical properties of the skin and/or the mucous membranes as agents preventing or reducing the adhesion of microorganisms to the latter
AB . . . effective quantity of at least one compound free of carbohydrate units, modifying the physicochemical properties of the surface of the skin and/or of the mucous membranes, so as to prevent or reduce the adhesion of microorganisms to the skin and/or the mucous membranes, chosen so that the decimal logarithm of the mean number of viable bacteria adhering to the epidermis, after a test consisting in bringing the said epidermis into contact with the test compound for. . .
SUMM . . . relates to the use of compounds which make it possible to modify the physicochemical properties of the surface of the skin and/or the mucous membranes in a cosmetic composition or for the

preparation of a pharmaceutical composition as agents preventing or reducing the adhesion of microorganisms, particularly bacteria , to the skin and/or the mucous membranes.

SUMM [0002] The human skin is permanently populated by a multitude of different microorganisms (bacteria, yeasts and fungi). The resident microbial flora, which is essential for good skin health, consists mainly of staphylococci (Staphylococcus epidermis and Staphylococcus hominis), corynebacteria, propionibacteria which are Gram+ such as Propionibacterium acnes, as well as a fungal flora mainly composed of Pytosporum ovale.

SUMM [0003] Skin infections are most often due to the disruption of the ecological balance among the resident flora following colonization of the skin by pathogenic exogenous microorganisms or following abnormal proliferation of an endogenous strain. The best known pathogenic microorganisms are Pseudomonas aeruginosa. . . . for small spots, folliculitis, red blotches and pruritus, Candida albicans which can cause inflammation of the corner of the lips, skin candidiasis, pruritus, folliculitis and aphtha, Staphylococcus aureus which can cause spots, folliculitis, impetigo and furuncles, and Streptococcus of group A. . . .

SUMM . . . of action affecting indiscriminately the pathogenic flora and the resident flora, and the problem of the risk of appearance of bacterial resistance, as well as problems of skin tolerance (irritations, allergies and the like).

SUMM [0005] It is also known to reduce or prevent the colonization of surfaces such as the teeth, the skin and/or the mucous membranes, by pathogenic microorganisms by preventing their attachment to these supports. The compounds used as antiadhesion agents. . .

SUMM [0006] However, most carbohydrates constitute a source of carbon for bacteria and fungi. Their presence in cosmetic compositions consequently promotes microbial proliferation and requires increasing the concentration of preservatives (bactericides or bacteriostats). This. . .

SUMM . . . that a group of particular compounds, free of hydrocarbon units, made it possible to significantly reduce microbial adherence to the skin and/or the mucous membranes and to thus prevent the proliferation of potentially pathogenic microorganisms in the absence of antibiotic, bactericidal or fungicidal agents.

SUMM . . . receptors to prevent bindings to the glycolipids of the corneocytes, act on the physicochemical properties of the surface of the skin and/or the mucous membranes, these physicochemical properties involving electrodynamic interactions due to Van der Waals forces, Lewis-type acid-base interactions and. . .

SUMM [0009] In addition, these compounds are not bactericidal. Because of this, they do not cause undesirable side effects on the skin and/or the mucous membranes.

SUMM . . . according to the invention, when used as active ingredients, make it possible to reduce or prevent the adhesion of a microorganism whose overall surface charge is negative or positive by increasing respectively the negative or positive charge on the skin, so as to cause repulsion between the skin and/or the mucous membranes and the microorganism.

SUMM . . . the invention, when used as active ingredients, make it possible, in addition, to reduce or prevent the adhesion of a microorganism by limiting as much as possible the Van der Waals type interactions between the skin and/or the mucous membranes and the microorganism, by promoting the repulsive interactions

of the Lewis acid-base type and by limiting the attractive interactions of the Lewis acid-base type between the microorganism and the skin and/or the mucous membranes.

SUMM . . . the composition containing it may be used both preventively, for its capacity to completely or partially prevent the adhesion of microorganism, and curatively for its capacity to facilitate the detachment of the microorganisms.

SUMM [0013] These compounds are chosen so that the decimal logarithm of the mean number of viable bacteria adhering to reconstructed epidermis, after a test consisting in bringing the said epidermis into contact with the test compound for. . . .

SUMM [0014] The reconstructed epidermis used in the test indicated above is reconstructed human epidermis, equivalent to human skin, sold by EPISKIN.

SUMM [0015] This test makes it possible to evaluate the modifications in the physicochemical properties of the surface of the skin and/or of the mucous membranes, involving Van der Waals electrodynamic interactions, Lewis-type acid-base interactions and electrostatic interactions.

SUMM . . . effective quantity of at least one compound free of carbohydrate units, modifying the physicochemical properties of the surface of the skin and/or of the mucous membranes, so as to prevent or reduce the adhesion of microorganisms to the skin and/or the mucous membranes, chosen so that the decimal logarithm of the mean number of viable bacteria adhering to reconstructed epidermis, after a test consisting in bringing the said epidermis into contact with the test compound for. . .

SUMM . . . pharmaceutical composition, an effective quantity of compounds free of carbohydrate units modifying the physicochemical properties of the surface of the skin and/or of the mucous membranes chosen from surfactants such as disodium cocoamphodiacetate, oxyethylenated glyceryl cocoate (7 EO) such as the. . .

SUMM [0022] According to the invention, the compound(s) or the composition containing them are used for topical application to the skin and/or the mucous membranes.

SUMM [0023] The adhesion of microorganisms to the skin and/or the mucous membranes has consequences which range from mere unpleasantness (odour, small spots and the like) to more serious. . .

SUMM [0025] In particular, the subject of the invention is the cosmetic use by topical application of at least one compound as active ingredient in a cosmetic composition intended to reduce bad body odours and/or intended for body hygiene health care.

SUMM [0026] The expression body hygiene health care is understood to mean any substance or preparation intended to be brought into contact with various superficial parts. . .

SUMM [0027] In particular, the subject of the invention is the cosmetic use by topical application of at least one compound as active ingredient in a cosmetic composition intended to combat comedones and/or dandruff.

SUMM [0028] The microbial flora of the surface of the skin is responsible for a large number of disorders.

SUMM . . . of at least one compound as active ingredient for the preparation of a pharmaceutical composition intended to be used by topical application to combat mycosis and/or acne, particularly juvenile acne.

SUMM . . . invention is also a cosmetic method for treating disorders linked to the adhesion of microorganisms consisting in applying to the

skin a cosmetic composition comprising at least one compound according to the invention in a cosmetically acceptable medium.

SUMM [0033] The expression cosmetically acceptable medium is understood to mean a medium compatible with the skin, the scalp, the mucous membranes, the nails and the hair.

SUMM . . . cosmetic and pharmaceutical compositions used according to the invention may be provided in all the galenic forms normally used for topical application, in particular in the form of an aqueous, aqueous-alcoholic or oily solution, an oil-in-water or water-in-oil or multiple emulsion,. . . .

SUMM [0051] They may be optionally applied to the skin in aerosol form.

SUMM [0053] They may be used as health care product, as cleansing product for the skin or the hair, as sun screen product, as make-up product such as foundations, lipsticks, mascaras, blushers, and/or as simple deodorant product.

SUMM [0056] Before bacterial adhesion, the reconstructed epidermis is brought into contact for 2 hours with 25 mg of the product to be tested at 37° C. 1 ml of bacterial suspension of Staphylococcus aureus at a concentration of 10.sup.7 microorganisms/ml in Tryptone salt is then added thereto. After incubating for 24 hours at 37° C., the bacterial suspension is emptied and five rinsings are carried out with 1 ml of sterile distilled water. The epidermis, detached from. . .

SUMM [0059] A bacteria/test product mixture, in the same ratio as in the antiadhesion test is brought into contact for 24 hours at 37° C. The test may require incubation, with stirring, in order to avoid the death of the bacteria through lack of oxygen, in particular as regards fats which are not solid at room temperature. The microorganisms are counted. . .

CLM What is claimed:

. . . effective quantity of at least one compound free of carbohydrate units, modifying the physicochemical properties of the surface of the skin and/or of the mucous membranes, so as to prevent or reduce the adhesion of microorganisms to the skin and/or the mucous membranes, chosen so that the decimal logarithm of the mean number of viable bacteria adhering to reconstructed epidermis, after a test consisting in bringing the said epidermis into contact with the test compound for. . .

. . . at least one compound according to claim 1, characterized in that the decimal logarithm of the mean number of viable bacteria adhering to reconstructed epidermis, after a test consisting in bringing the said epidermis into contact with the test compound for. . .

. . . according to either of claims 1 and 2, characterized in that the decimal logarithm of the mean number of viable bacteria adhering to reconstructed epidermis, after a test consisting in bringing the said epidermis into contact with the test compound for. . .

10. Method of cosmetic treatment for treating disorders linked to the adhesion of microorganisms consisting in applying to the skin and/or the mucous membranes a cosmetic composition comprising at least one compound as defined according to any one of claims. . .

11. Cosmetic use by topical application of at least one compound as defined according to any one of claims 1 to 5 in a cosmetic composition intended to reduce bad body odours and/or intended for body hygiene health care.

12. Cosmetic use by topical application of at least one

compound as defined according to any one of claims 1 to 5 in a cosmetic. . .
. . . to any one of claims 1 to 5 for the preparation of a pharmaceutical composition intended to be used by topical application to combat mycosis and/or acne.

IT 106392-12-5, Poloxamer
(Lutrol F 68; cosmetic and pharmaceutical compns. for prevention and decreasing adhesion of microorganisms to skin and/or mucosal tissue)
IT 103991-94-2
(Mexanyl GP; cosmetic and pharmaceutical compns. for prevention and decreasing adhesion of microorganisms to skin and/or mucosal tissue)
IT 87-69-4D, Tartaric acid, di-C12-13-alkyl esters 123-79-5, Dioctyl adipate 9002-92-0, Laureth 9003-05-8, Polyacrylamide 25231-21-4, Polypropylene glycol stearyl ether 31694-55-0D, cocoate esters 54111-93-2 77091-02-2 130926-64-6D, N-coco acyl derivs. 145686-34-6, Abil EM 90 161544-30-5, (Cosmacol ETI) 358382-84-0
(cosmetic and pharmaceutical compns. for prevention and decreasing adhesion of microorganisms to skin and/or mucosal tissue)

L42 ANSWER 32 OF 39 USPATFULL on STN
ACCESSION NUMBER: 2001:202207 USPATFULL
TITLE: End modified thermal responsive hydrogels
INVENTOR(S): Ron, Eyal S., Lexington, MA, United States
Bromberg, Lev, Swampscott, MA, United States
Temchenko, Marina, Swampscott, MA, United States
PATENT ASSIGNEE(S): Madash, LLC, Lexington, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6316011	B1	20011113
APPLICATION INFO.:	US 1999-368440		19990804 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-95330P	19980804 (60)
	US 1998-97741P	19980824 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Jones, Dameron L.
NUMBER OF CLAIMS: 41
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT: 2168
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
SUMM . . . polymers and compositions useful in a variety of pharmaceutical and personal care products and applications, and in particular, compositions useful topical and/or mucosal applications, such as esophageal, otic, vaginal, rectal, ophthalmic and treatments of disorders and imperfections of the skin.
SUMM . . . a very thin epithelium with minimal keratinized tissue that does not hinder the drug transport as compared to normal epidermal skin containing thick layers of keratinized tissues. Therefore, mucosal tissues offer an attractive surface to promote drug absorption.
SUMM Despite the advantages of mucosal tissue as a site for drug delivery,

direct topical application of pharmacological agents onto mucosal tissues has very limited value, due to the facile clearance of those agents via. . .

SUMM Bioadhesion or mucoadhesion is generally understood as the ability of a biological or synthetic material to "stick" to mucous membrane, resulting in adherence of the material to the tissue for protracted period of time. This concept has received significant attention. . .

SUMM . . . emolliency to the composition. The composition may also act as a film-forming agent after it has been applied to the skin or other mucosal membrane. This film-forming agent may be used as a barrier to prevent water loss from the skin which contributes to the moisturization of the skin. The formed-film could also provide protective coating ("band-aid") to protect the tissue against environmental challenge(s) or to provide a mechanical. . .

SUMM . . . emollience to the composition. The composition may also act as a film-forming agent after it has been applied to the skin. This film-forming agent may be used as a barrier to prevent water loss from the skin which contributes to the moisturization of the skin.

DETD . . . mucosal adhesion. Bioadhesion or mucoadhesion is generally understood as the ability of a biological or synthetic material to "stick" to mucous membrane, resulting in adherence of the material to the tissue for protracted period of time. This concept has received a significant. . .

DETD . . . but in providing treatments for animal care. For veterinary products, the end-modified hydrogel composition is indicated for the preparation of topical dermal products, such as antibacterials, antifungals, antipruritics, and antiseborrheia, antiodor, and antiseptic/wound healing preparations. Otic products would include ear cleaners. . .

DETD . . . but are in no way limited to, mucosal therapies, such as esophageal, otic, rectal, buccal, oral, vaginal, and urological applications; topical therapies, such as wound care, skin care and teat dips; and intravenous/subcutaneous therapies, such as intramuscular, intrabone (e.g., joints), spinal and subcutaneous therapies, tissue supplementation, adhesion. . .

DETD . . . including humans, sheep, horses, cattle, pigs, dogs, cats, rats, mice; birds; reptiles; fish; insects; arachnids; protists (e.g. protozoa); and prokaryotic bacteria. The term "plant" means higher plants (angiosperms, gymnosperms), fungi, and prokaryotic blue-green "algae" (i.e. cyanobacteria).

DETD . . . group consisting of MMR (mumps, measles and rubella) vaccine, typhoid vaccine, hepatitis A vaccine, hepatitis B vaccine, herpes simplex virus, bacterial toxoids, cholera toxin B-subunit, influenza vaccine virus, bordetela pertussis virus, vaccinia virus, adenovirus, canary pox, polio vaccine virus, plasmodium falciparum,. . .

DETD Examples of bacterial toxoids are tetanus, diphtheria, pseudomonas A, mycobaeterium tuberculosis. Examples of HIV envelop glycoproteins are gp 120 and gp 160 for. . .

DETD . . . the composition to increase the effectiveness of the emollient, to reduce scaling, to stimulate removal of built-up scale and improve skin feel. The amount of humectant may be in the range of about 0.5-30 wt % and preferably between 1-15 wt. . .

DETD . . . thinly to allow for even application, due to its low viscosity at room temperature, but will thicken and "fill" the skin

contours upon warming up to body surface temperature.

DETD . . . through a nozzle that provides high shear to reduce viscosity, yet the composition regains its viscosity after application to the skin. This contrasts with conventional formulations which permanently lose viscosity after being subjected to high shear.

DETD . . . shadow, eye lotion, eye makeup remover and mascara; fragrance preparations, such as colognes and toilet waters, powders and sachets; noncoloring hair preparations, such as hair conditioner, hair spray, hair straighteners, permanent waves, rinses shampoos, tonics, dressings and other grooming aids; color cosmetics; hair coloring preparations such as hair dye, hair tints, hair shampoos, hair color sprays, hair lighteners and hair bleaches; makeup preparations such as face powders, foundations, leg and body paints, lipstick, makeup bases, rouges and makeup fixatives; manicuring preparations such as basecoats and undercoats, cuticle softeners, nail creams and lotions, nail extenders, nail polish and enamel, and nail polish and enamel remover; oral hygiene products such as dentrifices and mouthwashes; personal cleanliness, such as bath soaps and detergents, deodorants, douches and feminine hygiene product; shaving preparations such as aftershave lotion, beard softeners, men's talcum, shaving cream, shaving soap and preshave lotions; skin care preparations such as cleansing preparations, skin antiseptics, depilatories, face and neck cleansers, body and hand cleansers, foot powders and sprays, moisturizers, night preparations, paste masks, and skin fresheners; and suntan preparations such as suntan creams, gels and lotions, indoor tanning preparations.

DETD . . . dipilatories, detergents, dispersants, emollients, emulsifiers, enzymes, essential oils, exfoliants, fibers, film forming agents, fixatives, foaming agents, foam stabilizers, foam boosters, fungicides, gellants, glosser, hair conditioner, hair set resins, hair sheen agents, hair waving agents, humectants, lubricants, moisture barrier agents, moisturizers, ointment bases, opacifier, plasticizer, polish, polymers, powders, propellant, protein, refatting agents, sequestrant, silicones, skin calming agents, skin cleansers, skin conditioners, skin healing, skin lightening agents, skin protestants, skin smoothing agents, skin softening agents, skin soothing agents, stabilizers, sunscreen agents, surfactants, suspending agents, tanning accelerators, thickeners, vitamins, waxes, wetting agents, liquefiers, colors, flavors and/or fragrances.. . .

DETD . . . the composition to increase the effectiveness of the emollient, to reduce scaling, to stimulate removal of built-up scale and improve skin feel. By way of example only, suitable humectants include polyhydric alcohols, such as glycerol, polyalkylene glycols, alkylene polyols their derivatives,. . .

DETD In topical skin care applications, a variety of active substances may be advantageously employed. By way of example only suitable active agents which. . . substances, anti-acne active substances, firming-up active substances, exfoliating active substances, emollient active substances, and active substances for the treating of skin disorders such as dermatitis and the like.

DETD . . . and the other absorbs strongly in the UVA radiation range. These sunscreening agents provide higher efficacy, broader UV absorption, lower skin penetration and longer lasting efficacy

relative to conventional sunscreens. Generally, the sunscreens can comprise from about 0.5% to about 20%. . .

DETD . . . cosmetic and personal care products. In particular, they may be useful as rheology modifiers, provide a cushioning effect on the skin, offer barrier properties and controlled release of actives. In addition, the polymer composition may serve as a surfactant and is. . . poloxamer:poly(acrylic acid) composition provides a cosmetic composition that spreads evenly and smoothly and which leaves a lubricious feel to the skin.

DETD Lidocain Gel (2%). An example of a topical gel containing Lidocaine as the active agent.

DETD . . . temperature until the air bubbles escaped. The formed hydrogel is clear and flowable at room temperature. Once applied on the skin the solution viscosity to provide a cushion and lubricious effect.

CLM What is claimed is:

17. The pharmaceutic composition of claim 11, wherein the pharmaceutical agent is absorbable through skin or mucosal membranes.

IT 79-10-7, Acrylic acid, reactions 814-68-6, Acryloyl chloride 32403-69-3 106392-12-5, Polyoxyethylene-polyoxypropylene block copolymer 106392-12-5D, amine-terminated, PEO and PPO amide derivs., acrylic polymers
(polyoxyalkylenes end-modified with acrylates as thermal responsive hydrogels)

L42 ANSWER 33 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2001:144925 USPATFULL		
TITLE:	Use of particular fatty substances which make it possible to modify the physicochemical properties of the skin and/or the mucous membranes as agents preventing or reducing the adhesion of microorganisms to the latter		
INVENTOR(S):	Lerebour, Geraldine, Athis Mons, France Arnaud-Sebillotte, Laurence, L'Hay Les Roses, France		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001018060	A1	20010830
APPLICATION INFO.:	US 2001-782520	A1	20010214 (9)
	NUMBER	DATE	
PRIORITY INFORMATION:	FR 2000-1842	20000215	
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	NIXON & VANDERHYE P.C., 8th Floor, 1100 North Glebe Road, Arlington, VA, 22201		
NUMBER OF CLAIMS:	12		
EXEMPLARY CLAIM:	1		
LINE COUNT:	441		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Use of particular fatty substances which make it possible to modify the physicochemical properties of the skin and/or the mucous membranes as agents preventing or reducing the adhesion of microorganisms to the latter

AB . . . and having an interfacial tension of between 6 and 27 mN/m,

modifying the physicochemical properties of the surface of the skin and/or of the mucous membranes so as to prevent or reduce the adhesion of microorganisms to the latter.

SUMM . . . the use of particular fatty substances which make it possible to modify the physicochemical properties of the surface of the skin and/or the mucous membranes in a cosmetic composition or for the preparation of a pharmaceutical composition as agents preventing or reducing the adhesion of microorganisms, particularly bacteria, to the skin and/or the mucous membranes.

SUMM [0002] The human skin is permanently populated by a multitude of different microorganisms (bacteria, yeasts and fungi). The resident microbial flora, which is essential for good skin health, consists mainly of staphylococci (Staphylococcus epidermis and Staphylococcus hominis), corynebacteria, propionibacteria which are Gram+ such as Propionibacterium acnes, as well as a fungal flora mainly composed of Pytosporum ovale.

SUMM [0003] Skin infections are most often due to the disruption of the ecological balance among the resident flora following colonization of the skin by pathogenic exogenous microorganisms or following abnormal proliferation of an endogenous strain. The best known pathogenic microorganisms are Pseudomonas aeruginosa. . . . for small spots, folliculitis, red blotches and pruritus, Candida albicans which can cause inflammation of the corner of the lips, skin candidiasis, pruritus, folliculitis and aphtha, Staphylococcus aureus which can cause spots, folliculitis, impetigo and furuncles, and Streptococcus of group A. . . .

SUMM . . . of action affecting indiscriminately the pathogenic flora and the resident flora, and the problem of the risk of appearance of bacterial resistance, as well as problems of skin tolerance (irritations, allergies and the like).

SUMM [0005] It is also known to reduce or prevent the colonization of surfaces such as the teeth, the skin and/or the mucous membranes, by pathogenic microorganisms by preventing their attachment to these supports. The compounds used as antiadhesion agents. . .

SUMM [0006] However, most carbohydrates constitute a source of carbon for bacteria and fungi. Their presence in cosmetic compositions consequently promotes microbial proliferation and requires increasing the concentration of preservatives (bactericides or bacteriostats). This. . .

SUMM . . . found, surprisingly, that particular fatty substances, free of hydrocarbon units, made it possible to significantly reduce microbial adherence to the skin and/or the mucous membranes and to thus prevent the proliferation of potentially pathogenic microorganisms in the absence of antibiotic, bactericidal or fungicidal agents.

SUMM . . . receptors to prevent bindings to the glycolipids of the corneocytes, act on the physicochemical properties of the surface of the skin and/or the mucous membranes, these physicochemical properties involving electrodynamic interactions due to Van der Waals forces, Lewis-type acid-base interactions and. . .

SUMM . . . In addition, these fatty substances are not bactericidal. Because of this, they do not cause undesirable side effects on the skin and/or the mucous membranes.

SUMM . . . according to the invention, when used as active ingredients, make it possible to reduce or prevent the adhesion of a microorganism whose overall surface charge is negative or positive by increasing respectively the negative or positive charge on the skin, so as to cause repulsion between the skin

and/or the mucous membranes and the microorganism.

SUMM . . . the invention, when used as active ingredients, make it possible, in addition, to reduce or prevent the adhesion of a microorganism by limiting as much as possible the Van der Waals type interactions between the skin and/or the mucous membranes and the microorganisms, by promoting the repulsive interactions of the Lewis acid-base type and by limiting the attractive interactions of the Lewis acid-base type between the microorganism and the skin and/or the mucous membranes.

SUMM . . . and having an interfacial tension of between 6 and 27 mN/m, modifying the physicochemical properties of the surface of the skin and/or of the mucous membranes so as to prevent or reduce the adhesion of microorganisms to the latter.

SUMM . . . the composition containing it may be used both preventively, for its capacity to completely or partially prevent the adhesion of microorganism, and curatively for its capacity to facilitate the detachment of the microorganisms.

SUMM [0014] Moreover, these fatty substances are such that the decimal logarithm of the mean number of viable bacteria adhering to reconstructed epidermis, after a test consisting in bringing the said epidermis into contact with the test compound for. . .

SUMM [0015] The reconstructed epidermis used in the test indicated above is reconstructed human epidermis, equivalent to human skin, sold by EPISKIN.

SUMM [0016] This test makes it possible to evaluate the modifications in the physicochemical properties of the surface of the skin and/or of the mucous membranes, involving Van der Waals electrodynamic interactions, Lewis-type acid-base interactions and electrostatic interactions.

SUMM [0022] According to the invention, the fatty substance or the composition containing it is used for topical application to the skin and/or the mucous membranes.

SUMM [0023] The adhesion of microorganisms to the skin and/or the mucous membranes has consequences which range from mere unpleasantness (odour, small spots and the like) to more serious. . .

SUMM [0025] In particular, the subject of the invention is the cosmetic use by topical application of at least one fatty substance as defined above, as active ingredient in a cosmetic composition intended to reduce bad body odours and/or intended for body hygiene health care.

SUMM [0026] The expression body hygiene health care is understood to mean any substance or preparation intended to be brought into contact with various superficial parts. . .

SUMM [0027] In particular, the subject of the invention is the cosmetic use by topical application of at least one fatty substance free of carbohydrate units, having a melting point of less than 35° C.. . .

SUMM [0028] The microbial flora of the surface of the skin is responsible for a large number of disorders.

SUMM . . . between 6 and 27 mN/m, as active ingredient for the preparation of a pharmaceutical composition intended to be used by topical application to combat mycosis and/or acne, particularly juvenile acne.

SUMM . . . invention is also a cosmetic method for treating disorders linked to the adhesion of microorganisms consisting in applying to the skin a cosmetic composition comprising at least one fatty substance according to the invention in a cosmetically acceptable medium.

SUMM [0033] The expression cosmetically acceptable medium is understood to mean a medium compatible with the skin, the scalp, the mucous membranes, the nails and the hair.

SUMM . . . cosmetic and pharmaceutical compositions used according to the invention may be provided in all the galenic forms normally used for topical application, in particular in the form of liquid, pasty or solid anhydrous products, such as oily lotions, oily gels, unguents,. . .

SUMM [0051] They may be optionally applied to the skin in aerosol form.

SUMM [0053] They may be used as health care product, as cleansing product for the skin or the hair, as sun screen product, as make-up product such as foundations, lipsticks, mascaras, blushers, and/or as simple deodorant product.

SUMM [0056] Before bacterial adhesion, the reconstructed epidermis is brought into contact for 2 hours with 25 mg of the fatty substance to be tested at 37° C. 1 ml of bacterial suspension of Staphylococcus aureus at a concentration of 10.sup.7 microorganisms/ml in Tryptone salt is then added thereto. After incubating for 24 hours at 37° C., the bacterial suspension is emptied and five rinsings are carried out with 1 ml of sterile distilled water. The epidermis, detached from. . .

SUMM [0059] A bacteria/test product mixture, in the same ratio as in the antiadhesion test is brought into contact for 24 hours at 37° C. The test may require incubation, with stirring, in order to avoid the death of the bacteria through lack of oxygen, for certain fatty substances. The microorganisms are counted by decimal dilution in Tryptone salt and inoculated. . .

CLM What is claimed is:

. . . and having an interfacial tension of between 6 and 27 mN/m, modifying the physicochemical properties of the surface of the skin and/or of the mucous membranes so as to prevent or reduce the adhesion of microorganisms to the latter.

9. Method of cosmetic treatment for treating disorders linked to the adhesion of microorganisms consisting in applying to the skin and/or the mucous membranes a cosmetic composition comprising at least one fatty substance according to any one of claims 1. . .

10. Cosmetic use by topical application of at least one fatty substance free of carbohydrate units, having a melting point of less than 35° C.. . . and 27 mN/m as active ingredient in a cosmetic composition intended to reduce bad body odours and/or intended for body hygiene health care.

11. Cosmetic use by topical application of at least one fatty substance free of carbohydrate units, having a melting point of less than 35° C.. . .

. . . between 6 and 27 mN/m as active ingredient for the preparation of a pharmaceutical composition intended to be used by topical application to combat mycosis and/or acne.

IT 103991-94-2, Mexanyl GP
(Mexanyl GP; use of fatty substances as agents preventing or reducing adhesion of microorganisms to skin and/or mucous membranes)

IT 56-81-5D, Glycerol, C16-C22 fatty esters, octoxy derivs. 87-69-4D, Tartaric acid, esters with C12-13 alcs. 103-23-1, Dioctyl adipate 110-27-0, Iso-Propyl myristate 112-10-7, Iso-Propyl stearate

142-91-6, Iso-Propyl palmitate 3687-46-5, Decyl oleate 6915-15-7D, Malic acid, di-C12-13-alkyl esters 27751-88-8, Octyl neopentanoate 34316-64-8, Hexyl laurate 42131-25-9, Isononyl isononanoate 68171-33-5, Iso-Propyl isostearate 131141-69-0, Dodecyl neopentanoate 161544-30-5, Cosmacol ETI 357264-00-7
(use of fatty substances as agents preventing or reducing adhesion of microorganisms to skin and/or mucous membranes)

L42 ANSWER 34 OF 39 USPATFULL on STN

ACCESSION NUMBER:	2000:160607 USPATFULL
TITLE:	Article having a transferable breathable skin care composition thereon
INVENTOR(S):	Vega, Victor Nicholas, Cincinnati, OH, United States Hanser, Thomas Robert, Taylor Mill, KY, United States Hauwermeiren, Tim Van, Ramsdonk, Belgium Roe, Donald Carroll, West Chester, OH, United States
PATENT ASSIGNEE(S):	The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6153209		20001128	
APPLICATION INFO.:	US 1999-407950		19990928	(9)
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	Granted			
PRIMARY EXAMINER:	Page, Thurman K.			
ASSISTANT EXAMINER:	Ghali, Isis			
LEGAL REPRESENTATIVE:	Wei-Berk, Caroline, Allen, George W., Stone, Kirsten K.			
NUMBER OF CLAIMS:	32			
EXEMPLARY CLAIM:	1			
NUMBER OF DRAWINGS:	3 Drawing Figure(s); 3 Drawing Page(s)			
LINE COUNT:	2420			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Article having a transferable breathable skin care composition thereon

AB The present invention relates to an article having a skin care composition disposed on at least a portion of the article. The skin care composition is a breathable, barrier protectant which can be immobilized on the article and is transferable to the wearer's skin via contact, normal wearer motion and/or body heat. Particularly, the skin care composition should have a water vapor transmission rate of at least about 0.1 gm/m.sup.2 /hr and a barrier property. . .

SUMM . . . and the like. More particularly, the present invention relates to absorbent articles for body exudates wherein the article has a skin care composition disposed thereon. Such a composition is transferable to the wearer's skin by normal contact, wearer motion, and/or body heat. The skin care composition used in the present invention is suitable for maintaining and/or improving skin condition of the wearer of the article upon transfer during use. The skin care composition used in the present invention provides a protective barrier against water, large molecules and particulate matter that exist in body exudates. Such a composition also minimizes abrasions where the absorbent article and the wearer's skin are in contact, eases BM clean-up, and may also deliver skin care ingredients to achieve various skin benefits. Most importantly, the skin care composition used in

the present invention provides a breathable, protective barrier that keeps body exudates and other irritants from direct contact with the skin yet allows water vapor to pass through.

SUMM . . . an occlusive micro-environment in the body regions where they are worn. This occlusion micro-environment often results in overhydration of the skin. It is known that overhydrated skin is more susceptible to skin disorders, including erythema (i.e., redness), diaper rash or diaper dermatitis, heat rash, abrasion, pressure marks and skin barrier break-down. Diaper rash is a common form of irritation and inflammation of those parts of an infant's body normally. . . or chemical irritation (see 21 C.F.R. 333.503). When absorbent articles are worn to absorb and contain the body exudates, the skin under the absorbent articles is held in direct contact with body exudates and other irritants, under an occluded condition. Often, the skin is subjected to such condition for extended periods of time, that is, until the soiled article is changed. As the skin under the absorbent article becomes overhydrated or irritated by such prolonged and repeated exposures, the skin condition is compromised, i.e., the skin becomes more susceptible to skin disorders or damages. While this condition is best known in infants, it is not limited to infants. Similar conditions occur. . .

SUMM To address the concerns of skin abnormalities associated with wearing absorbent articles, the practical approaches often attempt to address multiple causes or important cofactors. Reducing skin overhydration by frequent changing of diapers, the use of moisture absorbing powders, the use of superabsorbent materials, and the improvement. . .

SUMM A typical approach is to apply a topical cream, ointment, lotion or paste by hand to the buttocks, genitals, anal and/or other regions before placing the absorbent article on the wearer. This procedure usually provides some degree of physical barrier protection to the skin against direct contact with urine, feces or other irritants. However, the barrier approach may be occlusive in itself. It has been found that occlusive barrier material may interfere with the healing and repair of skin's natural barrier function once skin barrier function is compromised or skin disorders have developed.

SUMM It is recognized that a skin care composition for skin disorders associated with skin overhydration should have good barrier properties. Petrolatum is a well known barrier protectant which forms a water repellant layer on the skin surface and minimizes moisture loss from the skin. Petrolatum also forms a barrier against large molecules (e.g., fecal enzymes) and particulate matters in body exudates. But this petrolatum layer over skin is occlusive such that it may interfere with the barrier repair capability of the skin. Lanolin is another good barrier protectant as well as a nourishing substance, but lanolin is also occlusive. Many other fats. . . stabilizers. However, hydrogenation tends to increase the viscosity of the substance and reduce its spreadability, and stabilizers may cause other skin problems, such as irritation or allergy.

SUMM . . . the substance that covers the entire body of human and mammalian fetuses at or near full term. Vernix on fetal skin exhibits some unique characteristics not found in fully developed or mature skin. It has been shown that vernix has a very low transepidermal water loss (TEWL) value. It is believed that vernix. .

. which is accompanied by heat loss, from the epidermis. Vernix is also a very effective barrier against moisture penetration. Mature skin becomes overhydrated and develops maceration or irritant dermatitis after just a couple of days' exposure to water. In contrast, the full or near term fetus' skin is healthy, smooth and supple, even though is has been exposed to the total immersion environment in the uterus for. . .

SUMM Various skin creams, lotions and ointments are available for treating skin disorders. Most of them are moisturizing preparations that enhance water retention in the skin, and thus, are not effective for skin disorders associated with overhydration, such as erythema or diaper rash. However, skin preparations for overhydration problem have been focused mostly on the barrier approach. Hence these preparations tend to be occlusive and hinder the natural barrier repair function of the skin. Moreover, the lotions, creams or ointments have always been applied by hand to the targeted areas. The topical application by hands tends to leave a thick sticky coating or a layer of white residue that is aesthetically unpleasing.. . .

SUMM Attempts have also been made to prepare absorbent articles which contain a transferable skin care composition on the skin -capacity surface so that the hand-application procedure is not necessary. However, many lotions, creams and ointments generally are not suitable for. . .

SUMM . . . higher level of such compositions must be applied to the article surface in order to provide enough transfer to the skin to achieve a protective coating. This higher add-on level not only increases the cost per article, but also increases the. . .

SUMM U.S. Pat. No. 4,760,096 to Sakai et al. teaches a moisturizing skin composition comprising a phosphatide (such as lecithin) and one or more C10-C30 carboxylic acid sterol esters. Such compositions preferably contain. . . of the composition disclosed by Sakai is that the composition is a moisturizer which enhances the water retention in the skin. Accordingly, it does not prevent or minimize the overhydration problem of the skin under an absorbent article.

SUMM U.S. Pat. No. 5,409,903 to Polak et al. teaches a method and a composition for treatment or prevention of skin rash or dermatitis wherein urease containing bacteria, bacterial components and by-products are implicated. The composition may be applied to skin in combination with an adhesive, film-forming or barrier compound. A major disadvantage of Polak et al. is that a thin. . .

SUMM U.S. Pat. No. 3,896,807 to Buchalter teaches an skin -contacting article impregnated with a solid oil phase of a cream formulation which forms a cream upon addition of moisture thereto.. . . occlusive barrier protectant. Another disadvantage of Buchalter is that the transfer of a beneficial substance from the article to the skin is delayed until fluids are absorbed by the solid oil phase.

SUMM U.S. Pat. No. 5,643,588 to Roe et al. teaches an absorbent article having a skin treating composition on the surface of a disposable diaper that is solid or semi-solid at ambient temperature, and is transferable to the wearer's skin by contact, wearer motion and/or body heat. However, some of the compositions disclosed by Roe et al. may be occlusive.

SUMM In light of the foregoing, it would be desirable to have an article-deliverable skin care composition that is breathable

or non-occlusive. Such a skin care composition should also have good barrier properties against urine, feces, or other body exudates or irritants. Such composition should also minimize skin overhydration, maintain the integrity of skin barrier function, and thus effectively prevent secondary irritation or infection when skin is compromised or damaged, and promote the barrier repair function of the skin.

SUMM Moreover, it would be desirable that the skin care composition can be immobilized on an absorbent article for hands-free transfer to the wearer's skin during use, for minimizing adverse effects on the absorbency of the article, and for avoiding stains on clothing, bedding or. . .

SUMM It would also be desirable for the skin care composition not to irritate or sensitize the skin and be oxidatively stable for long shelf life of the product.

SUMM It would be further desirable to have an absorbent article having a breathable, barrier type skin care composition disposed thereon for hands-free transfer to the wearer's skin by contact, normal wearer motion and/or body heat.

SUMM It would also be desirable to have an absorbent article having one or more types of skin care composition disposed thereon, wherein at least a portion of the composition is transferable to the wearer's skin to provide desired skin benefits including a prevention and/or reduction in erythema, a reduction in BM adherence to the skin for easier removal of BM, reduction in occlusion, overhydration and/or abrasion of the skin, and the like.

SUMM It would also be desirable to have a skin care composition which is solid or semi-solid at ambient temperature so that it is immobilized on the surface of an absorbent article. The skin care composition should be able to become fluid or plastic at or near skin temperature, or when slight force is applied, so that it is readily transferable to the skin. The skin care composition should also be substantially flowable at the processing temperature so that it can be successfully applied to the. . .

SUMM The present invention relates to articles having a skin care composition disposed on at least a portion of the article. The skin care composition provides a breathable, barrier protectant, can be immobilized on the article and is transferable to the wearer's skin via contact, normal wearer motion and/or body heat. Particularly, the skin care composition is solid or semi-solid at 20° C., and a Water Vapor Permeation Rate of at least about 0.1. . .

DRWD FIG. 2 shows a schematic representation illustrating a preferred process for applying the skin care composition used in the present invention to diaper topsheet and/or cuffs.

DRWD FIG. 3 shows a schematic representation illustrating an alternative process for applying the skin care composition used in the present invention to diaper topsheet and/or cuffs.

DETD As used herein, the term "occluded skin" means skin in areas under an absorbent article when the article is worn, As used herein, the term "compromised skin" is not limited to a particular area of the body; the term "compromised skin" means skin that has been subjected to repeated or chronic exposures, or one or more acute episodes of exposure, to body exudates (e.g., urine, feces, menstrual fluids, sweat), moisture, irritants, etc. such that the skin develops redness, chaffing, roughness, wrinkled appearance or itchiness.

DETD As used herein, the term "skin care agent" means a substance or a mixture of substances, when applied to a subject's skin, either alone or incorporated into a skin care composition, provides skin condition benefits such as actual or perceived changes in appearance, cleanliness and attractiveness. The term is also directed to substances that soothe, calm, or promote feelings of relief when applied to the skin, e.g., herbal, mineral or aromatic ingredients.

DETD As used herein, the term "effective amount" of the skin care composition means an amount large enough to significantly or positively bring about the desired effect or to modify the condition to be treated such that the skin appears cleaner, more attractive or in better condition. The effective amount varies with the specific ingredient or composition used, the. . .

DETD As used herein, the terms "dermatologically acceptable" or "safe" means the amount of a skin care composition or the components therein is low enough that it produces no undue (i.e., at a reasonable benefit to. . .

DETD . . . or otherwise restored or reused as an absorbent article after a single use. Examples of disposable absorbent articles include feminine hygiene garments such as sanitary napkins, panti-liners and tampons, diapers, incontinence briefs, diaper holders, training pants, and the like.

DETD . . . liquids (e.g., menses, urine, and/or other body exudates). The absorbent core is preferably compressible, conformable, and non-irritating to the wearer's skin. The absorbent core may be manufactured in a wide variety of sizes and shapes (e.g., rectangular, oval, hourglass, "T" shaped,. . .

DETD The topsheet is preferably compliant, soft feeling, and non-irritating to the wearer's skin. Further, the topsheet is liquid pervious, permitting liquids (e.g., menses and/or urine) to readily penetrate through its thickness. A suitable. . .

DETD As discussed above, while it is preferred that the composition which is continually, automatically transferred to the wearer's skin by wearing articles described herein be relatively impervious to liquids such as urine and runny feces, it is also preferred that the composition be relatively vapor pervious to provide a nonocclusive barrier for the skin. In this regard, to further improve skin condition in the wearer's region under the absorbent articles via the presently disclosed methods, absorbent articles useful in those methods may also provide "breathability", to facilitate relatively lower relative humidity in the area between the skin and the absorbent article. Recently, attempts have been disclosed that are directed to improving wearer skin condition by allowing the overhydrated skin to dehydrate to a more acceptable level by allowing either air to reach the skin (thus minimizing potential occlusion effects) and/or providing means for removing water vapor from the surface of the skin. Generally, such features are referred to as providing "breathability" or "vapor or moisture permeability". Specific examples include feminine hygiene products, such as catamenial products or so-called pantyliners as described in EP-A-0.104.906; EP-A-0.171.041; EP-A-0.710.471; the disclosure of each of which. . . baby diapers or adult incontinence products, which have theoretical storage capacities more than ten times the capacity of a feminine hygiene product. The "breathable" articles described in these references may be treated with skin care composition as described herein, and such treated articles may be

useful in the methods of the present invention.

DETD A preferred disposable absorbent article in which the wearer-contacting surface is treated with a skin care composition comprises diapers and training pants. As used herein, the term "diaper" refers to an absorbent article generally worn. . .

DETD Alternatively, the topsheet may be in the form of an apertured formed film, which is preferred in feminine hygiene absorbent articles. Apertured formed films are useful because they are pervious to body liquids and yet non-absorbent and have a reduced tendency to allow liquids to pass back through and rewet the wearer's skin. Thus, the surface of the formed film that is in contact with the body remains dry, thereby reducing body soiling. . . 4,629,643 (Curro et al), issued Dec. 16, 1986, which are incorporated by reference. The preferred topsheet for use in feminine hygiene products is the formed film described in one or more of the above patents and marketed on sanitary napkins by. . .

DETD . . . be recognized that any absorbent article design may be utilized in the context of the present invention, so long as skin care composition is applied to the article so as to be transferred to the skin during use. The disclosure above is merely for illustrative purposes.

DETD The present invention may also employ training pants to effect delivery of the desired skin care composition. The term "training pants", as used herein, refers to disposable garments having fixed sides and leg openings designed. . .

DETD Another disposable absorbent article embodiment of the present invention comprises feminine hygiene articles, such as sanitary napkins. Suitable feminine hygiene articles are disclosed in U.S. Pat. No. 4,556,146, issued to Swanson et al. on Dec. 3, 1985, U.S. Pat. No.. . .

DETD III. Skin Care Composition

DETD The skin care compositions used in the articles of the present invention provide various skin benefits intended to maintain and/or improve the skin condition of the skin areas under an absorbent article or chronic exposure to body waste, moisture, irritants, etc. It is preferred that the skin care composition should provide a protective, and preferably non-occlusive function (e.g., a relatively liquid impervious but vapor pervious barrier) to avoid skin overhydration and skin exposure to materials contained in body exudates; an abrasion minimizing function to reduce skin irritation in the areas where the absorbent article is in contact with the wearer's skin; and should contain ingredients that deliver, either directly or indirectly, skin care benefits. For example, direct benefits may be directed towards overhydration reduction, redness reduction or skin conditioning, and indirect benefits may be directed towards removal or reduction of skin irritants in body exudates. It is also preferred that the skin care composition contains emollients that maintain or improve the skin condition against chaffing, roughness, wrinkled appearance or itchiness. Furthermore, the skin care composition preferably has a smooth, silky, non-grainy skin feel to minimize abrasion of sensitive or compromised skin due to conditions such as chaffing, roughness, or rashes.

DETD The preferred skin care composition for use in the present invention should contain sufficient emollients so that it maintains skin in its normal, healthy condition or improves the skin condition against chaffing, roughness, redness, wrinkled

appearance or itchiness. Specifically, the preferred composition should contain emollients that are barrier protectants. . . irritants, their derivatives or by-products, particularly those existing or developed in body exudates. Barrier protection is particularly effective in preventing skin abnormalities and damages associated with overhydration, and subsequent break-down of skin's protective barrier function. The preferred composition should also contain non-occlusive or breathable (i.e., water vapor and gas permeable) agents so that the skin covered by the composition is subjected to a local environment closely simulating that of untreated skin, i.e., the treated skin can "breathe" like the untreated skin. Breathability is an important factor in the healing of overhydrated and/or damaged skin and maintaining skin appearance or condition. It is surprising to find that the skin care compositions used in the present invention can achieve both barrier protection and breathability to provide an optimal environment for diapered skin.

DETD Because the skin care composition is applied to the skin via a delivery vehicle such as an absorbent article, the preferred skin care composition for the present invention should have a melting/rheological profile that meets the following requirements: the composition should preferably. . . adverse effects to the absorbency of the article are minimized; the preferred composition should also be readily transferable to the skin by contact, normal wear motions and/or body heat; therefore, the skin care composition is preferably plastic or fluid at skin temperature (i.e., about 34-36° C.) to facilitate the transfer to the skin; and the preferred composition should have storage stability, typically up to at least about 45° C.

DETD Typically, the skin care compositions used in the present invention will have a breathability of at least about 0.1 gm/m.sup.2 /hr, preferably at. . .

DETD The skin care compositions used in the present invention should also have a moisture barrier property ranging from about 5 to about. . . coordinate, using a Methylene Blue Dye Method described in the Test Methods Section hereinafter. As measured by this Method, a skin care composition having a poorer water barrier property would give a larger negative "b" value.

DETD As will be discussed hereinafter, the skin care compositions useful in the present invention will generally have a melting profile such that they are relatively immobilized and localized on the wearer-contacting surface of the article at room temperature, are readily transferable to the skin at skin temperature, and yet are not completely liquid under "stressful" storage conditions. Preferably, the compositions are easily transferable to the skin by way of contact, shear, normal wearer's motions and/or body heat. Because the composition preferably is substantially immobilized on the article's surface, a relatively low level of composition is needed to impart the desired skin care benefits. In addition, special barrier or wrapping materials may be unnecessary in packaging the treated articles useful in the. . .

DETD . . . to undesired locations of the article, and thus avoid significant interference with the absorbency of the article. This means less skin care composition is required for imparting desirable appearance, protective or conditioning benefits. Preferably, the compositions of the present invention have. . .

DETD . . . the article to undesired locations. One the other hand, too

high a viscosity may inhibit transfer of composition to the skin . Therefore, a balance should be achieved so the viscosities are high enough to keep the compositions localized on the surface of the article, but not so high as to impede transfer to the skin. In addition, the compositions preferably have a final melting point above skin temperature, more preferably above potential "stressful" storage conditions that can be greater than 45° C. (e.g., warehouse in Arizona, car. . .

DETD The skin care compositions useful in the present invention will generally comprise an emollient or mixture of emollients, a permeability enhancing agent and an immobilizing agent. Other optional ingredients may also be included, such as skin care agents, theological agents, anti-oxidants, and the like.

DETD . . . "emollient" means a material that protects against wetness or irritation, softens, soothes, supples, coats, lubricates, moisturizes, protects and/or cleanses the skin. In a preferred embodiment, these emollients will have either a plastic or liquid consistency at ambient temperatures, i.e., 20° C.

DETD Emollients may maintain the normal, healthy skin condition. Emollients may also improve the dry skin condition by restoring its moisture level as well as its softness, smoothness and flexibility. One type of emollients, generally referred. . . from the surrounding atmosphere and enhance the water absorption of the stratum corneum (i.e., the outer, corny layer of the skin). Another type of emollients, generally referred to as barrier protectants, form an occlusive (i.e. non-water-permeable) layer when deposited on the surface of the skin, which prevent or retard moisture losses from the deeper layers of the skin to the atmosphere. These emollients also act as barriers protecting the skin from larger molecules, such as fecal matter, enzymes, and other irritants.

DETD . . . %, preferably no less than about 20 wt %, more preferably no less than about 30 wt % of the skin care composition.

DETD An effective emollient having superior barrier properties may be a mixture of components which simulate the skin's natural water-barrier forming lipid complex, particularly vernix (i.e., the substance covering the bodies of fetuses or newborns of human or. . .

DETD A preferred emollient for use herein comprises (based on the total weight of the emollient in the skin care composition):

DETD . . . 0.5% by weight of the emollient component. The substantially anhydrous character of the emollients avoids overhydration of the already susceptible skin which is chronically exposed to a high relative humidity micro-environment. Furthermore, the substantially anhydrous character of the emollients avoids the. . . core, interfering with the absorbency of the core and keeping the emollients away from the topsheet surface and the wearer's skin.

DETD . . . amount of emollient included in the composition will depend on a variety of factors, including the particular emollient involved, the skin benefits desired, the other components in the composition, and like factors. The emollients will generally comprise from about 5 to about 95 wt % of the skin care composition. Preferably, the emollients comprise from about 10 to about 90 wt %, more preferably from about 20 to about 80 wt %, and most preferably from about 30 to about 75 wt %, of the skin care composition.

DETD Typically, the skin care compositions of the present invention will also include a permeability agent. The permeability agent is a substance which, when incorporated in a composition, increases the water vapor permeation from the skin or collagen film surface

through the composition that covers it. Preferably the permeability agent is also miscible with the emollients. . .

DETD . . . Branched or unsaturated structures within the fatty acid esters have been found to be effective to increase WVTR of the skin care composition, therefore, are effective as permeability agents. However, unsaturation in the chain structure often leads to oxidative instability, which may require the incorporation of stabilizers or antioxidants. Certain stabilizers or antioxidants may cause skin irritation or sensitization in some individuals. Where unsaturated permeability agents are used, antioxidants such as vitamin E and derivatives are. . .

DETD . . . included in the composition will depend on a variety of factors, including the particular emollients and/or immobilizing agents involved, the skin benefits desired, the other components, if any, in the composition (e.g., skin care actives), and like factors. The permeability agent will comprise from about 1 to about 95 wt % of the skin care composition. Preferably, the permeability agent will comprise from about 5 to about 75 wt %, and more preferably from about 5 to about 50 wt %, of the skin care composition.

DETD Another optional, preferred component of the skin care compositions useful in the present invention is an agent capable of immobilizing the skin care composition in the desired location in or on the treated article. Because certain of the preferred emollients in the. . .

DETD . . . effects on the absorbency of the article core due to the hydrophobic characteristics of many of the emollients and other skin conditioning agents used in the compositions useful in the methods of the present invention. It also means that much more emollient has to be applied to the article to get the desired skin smoothness benefits. Increasing the level of emollient not only increases the cost, but also exacerbates the undesirable effect on the. . .

DETD . . . segregate and to "lock-in" the composition in a substantially homogeneous mixture (i.e., immiscible components can still provide a substantially homogeneous skin care composition suitable for use in the present invention).

DETD Other suitable immobilizing agents that may be used herein include "solid" glyceryl esters (i.e., plastic or solid at or below skin temperature), particularly glyceryl esters having C8-C30 fatty acid chains. Nonlimiting examples of glyceryl esters include glyceryl monoesters, preferably glyceryl monoesters. . .

DETD . . . three or more free hydroxy groups on the polyhydroxy moiety and are typically nonionic in character. Because of the possible skin sensitivity of those using articles to which the composition is applied, these esters and amides should also be relatively mild and non-irritating to the skin. Suitable polyhydroxy fatty acid esters for use in the present invention will have the formula: ##STR2## wherein R is a. . .

DETD . . . Additionally microcrystalline waxes are effective immobilizing agents. Microcrystalline waxes can aid in "locking" up low molecular weight hydrocarbons within the skin care composition. Preferably the wax is a paraffin wax. An example of a particularly preferred alternate immobilizing agent is a. . .

DETD . . . the emollients and permeability agents involved, the particular immobilizing agent involved, if any, the other components in the composition (e.g., skin care actives), whether an emulsifier

is required to solubilize the immobilizing agent in the other components, and like factors. When. . .

DETD . . . other components typically present in emulsions, creams, ointment, lotions, suspensions, etc. of this type. These components include water, surfactants, emulsifiers, skin care agents, humectants, anti-oxidants, viscosity modifiers, suspending agents, pH buffering systems, disinfectants, antibacterial actives, antiviral agents, vitamins, pharmaceutical actives, film. . .

DETD Depending on the skin condition to be treated, humectants may be included in the skin care compositions. Humectant is a type of moisturizing emollient which attracts moisture from the surrounding atmosphere and enhance water absorption of the stratum comeum (i.e., the outer, corny layer of the skin). Nonlimiting examples of humectants useful herein include glycerin; C2-C6 glycols, such as ethylene glycol, propylene glycol, butylene glycol, hexalene glycol;. . .

DETD . . . of unsaturated carbons in substances, such as cellulose derivatives, proteins, lecithin and unsaturated hydrocarbons, may lead to rancidity of the skin care composition. Anti-oxidants can be added to minimize or prevent the oxidation process, which enhances the shelf life of the. . .

DETD Safe and effective skin care agents may be incorporated in the skin care composition for use herein. Such materials include Category I and Category III actives as defined by the U.S. Food and Drug Administration's (FDA) Tentative Final Monograph on Skin Protectant Drug Products for Over-the-Counter Human Use (21 C.F.R. .sctn. 347). These monographed materials are known to provide multiple skin benefits, such as skin protection, itch prevention, irritation prevention, via various mechanisms. It will be recognized that several of the monographed actives listed below. . . cocoa butter, dimethicone, cod liver oil (in combination), glycerine, kaolin, petrolatum, lanolin, mineral oil, shark liver oil, white petrolatum, talc, topical starch, zinc acetate, zinc carbonate, zinc oxide, and the like. Category III actives presently include: live yeast cell derivatives, aldioxa,. . . oil, protein hydrolysates, racemic methionine, sodium bicarbonate, Vitamin A, and the like. These monographed materials are known to provide multiple skin benefits, such as skin protectant, itch prevention, irritation prevention, via various mechanisms.

DETD Other skin care agents are suitable for the present invention may include, but are not limited to, pH control agents or proton donating agents, protease inhibitors, enzyme inhibitors, chelating agents, anti-microbials, skin soothing agents and the like. Some nonlimiting examples of these skin care agents are described in co-pending U.S. application Ser. No. 09/041,509, by McOsker et al. filed on Mar. 12, 1998;. . .

DETD Particularly preferred skin care agents herein include: zinc oxide, talc, starch, allantoin, aloe vera, hexamidine and its salts and derivatives, hexamidine diisethionate, and. . .

DETD Suitable rheological agents such as suspending agents or viscosity modifiers, may be need for dispersing and suspending the skin care agents in the compositions. Some of the suspending agents may also function as viscosity enhancing agents. Nonlimiting examples of. . .

DETD If water-based skin care compositions are used, emulsifiers may be added for solubilizing the thickening agents and/or suspending agents in the emollients. Suitable emulsifiers are typically hydrophilic surfactants, preferably mild and non-irritating to the skin.

For example, nonionic hydrophilic surfactants non-irritating to the skin, and also avoid undesirable effects on any underlying tissue laminate structure. Suitable hydrophilic surfactants, nonionic or other types, are known. . .

DETD A preservative will also be needed to prevent bacterial growth and odors thereof, particularly in water-based skin care compositions. Suitable preservatives include propyl paraben, methyl paraben, benzyl alcohol, benzalkonium, tribasic calcium phosphate, BHT, or acids such as. . .

DETD . . . predispersant are pre-mixed in a separate step before being added to the composition. However, predispersion of zinc oxide or other skin care ingredients are not required. These ingredients can be mixed with the carrier directly under sufficient agitation.

DETD While the compositions of the present invention typically are applied to the skin via a delivery vehicle such as an absorbent article, it is to be understood that these compositions may be used. . .

DETD In preparing absorbent articles treated with the skin care compositions of the present invention, the skin care composition is applied to the article such that during wear, at least some portion of the composition will transfer from the treated article to the wearer's skin. That is, skin care composition may be applied directly to one or more wearer-contacting surfaces, such as topsheet, backsheet, cuff, side panel, and waist region. The skin care composition may also be applied in alternate locations or via means such that the skin care composition is readily available for transfer from one or more wearer-contacting surfaces during use without intervention by the user/caregiver.. . .

DETD . . . (e.g., flexographic printing), coating (e.g., contact slot coating, gravure coating), extrusion, or combinations of these application techniques, e.g., spraying the skin care composition on a rotating surface, such as a calender roll, that then transfers the composition to the desired portion of the article. The skin care composition can also be applied as a solid or semi-solid material via any of a variety methods; for example, extrusion is suited for skin care composition having an apparent viscosity in the range from about 100,000 centipoise to about 1,000,000 centipoise at the processing. . .

DETD . . . topsheet to transmit liquid to the underlying absorbent core. Also, saturation of the topsheet is not required to obtain the skin care benefits. Similarly, saturation of other treated article components may not be necessary or desired to transfer sufficient composition for desired skin benefits. Particularly suitable application methods will apply the composition primarily to the outer surface of the topsheet of the article.

DETD . . . the composition to be applied to the article's wearer-contacting surface is an amount effective for providing the appearance, protective and/or skin conditioning benefits when the composition is delivered to the skin of the wearer pursuant to the present invention. The level of composition applied will depend on various factors, including the. . . mg/cm.sup.2), more preferably from about 1 mg/in.sup.2 (0.156 mg/cm.sup.2) to about 25 mg/in.sup.2 (3.9 mg/cm.sup.2). It is recognized that the skin care compositions are relatively hydrophobic and to be applied to the topsheet of the article without covering the entire topsheet surface. It will be recognized that higher levels of skin care composition may be applied to other article components where fluid handling properties are not impacted (e.g., cuffs, waist band,. . .

DETD . . . an effective amount of the active. It is believed that the ability to use low levels to impart the desired skin benefits is due to the fact that the composition is continuously, automatically delivered as articles are worn. As indicated, the ability to use relatively low levels of skin care composition, allows the topsheet of the article to maintain its liquid transfer properties in the liquid discharge region.

DETD The skin care composition containing a active can be applied nonuniformly to the wearer-contacting surface of the article. By "nonuniform" it is. . .

DETD Surprisingly, while the topsheet or other components comprising the skin care composition are treated nonuniformly (e.g., microscopic or macroscopic regions where no composition is applied), during wear of the article, the composition is transferred to the wearer even in regions of the skin corresponding to untreated regions within the topsheet or other components. The amount and uniformity of composition transferred to the skin is believed to depend on several factors, including, for example, application pattern of the skin care composition, contact of the wearer's skin to the treated article surface, friction created during wear time between the wearer's skin and the treated region, warmth generated from wearer to enhance the transfer of the composition, the properties of the composition,. . .

DETD In one preferred embodiment of the present invention, the topsheet of the articles utilized will comprise stripes of the skin care composition that run in the article's longitudinal direction. These longitudinal stripes (or spirals) are separated by longitudinal stripes where little or no skin care composition is applied to the topsheet. In these embodiments, each stripe of composition will typically have a width of. . .

DETD Skin care composition can also be applied in nonuniform patterns on other article components. In these cases, the open area is calculated by the rectangle defined by the perimeters of the skin care composition.

DETD . . . to about 150° C., preferably from 40° C. to about 100° C., prior to being applied to the article. Any skin care active ingredients may be added to the composition prior to or after heating. Special care should be taken when. . .

DETD FIG. 2 illustrates a preferred method involving continuous or intermittent contact slot coating of the skin care composition onto a diaper topsheet and/or leg cuffs during the converting operation. Referring to FIG. 2, conveyor belt 1. . . 6 where the topsheet and/or cuffs patch 7 is coated with a hot, molten (e.g., 170° F. or 77° C.) skin care composition. After leaving slot coating station 6, non-lotioned diaper 5 becomes lotioned diaper 8. The amount of skin care composition transferred to patch 7 is controlled by: (1) the rate at which the molten skin care composition is applied from contact slot coating station 6; and/or (2) the speed at which conveyor belt 1 travels. . .

DETD FIG. 3 illustrates an alternate preferred method involving contact slot coating of the skin care composition on the diaper topsheet and/or cuffs before the topsheet and/or cuffs are assembled with other raw materials into. . . station 26 where one side of the web is coated with a hot, molten (e.g., 170° F. or 77° C.) skin care composition. After leaving slot coating station 26, nonwoven web 21 becomes a lotioned web indicated by 23. Lotioned web. . .

DETD The Water Vapor Transmission Rate (WVTR) determines the rate of water evaporation through a collagen film treated with a skin care composition on one side. As indicated hereunder, it is a measure of the "breathability" of the skin care composition when the composition is coated on the skin.

DETD A skin care composition is applied to the collagen film on one side only. Where the collagen film is textured, the composition. . . desired loading level is achieved (e.g., around 1.0 mg/cm2). The coated collagen film is weighed and loading level of the skin care composition is determined.

DETD The loading level of the skin care composition is a variable in the measured water evaporation rate. For example, skin care compositions applied at a level of 0.5 mg/cm2 typically exhibit a higher water evaporation rate than when applied at a level of 1.0 mg/cm2. Therefore, when comparing the water vapor transmission rate of different skin care compositions, it is necessary that the skin care composition application level be the same.

DETD A Methylene Blue Dye Test is used to assess the moisture barrier properties of skin care compositions used herein.

DETD . . . preconditioned in a controlled environment (72+/-3° F. and 40+/-10% Relative Humidity) for at least 16 hours prior to testing. A skin care composition is applied to the smooth side (where applicable) of the collagen film uniformly, till the desired loading level. . .

DETD . . . assembled into a multi-layered structure to provide a constant background for the chromameter measurement as well as to keep the skin care composition from direct contact with the instrument probe. The assembly is as follows (from top to bottom): a clear. . .

DETD . . . value indicates blue coloration of the test collagen film, which is the result of methylene blue solution penetration through the skin care composition covering the collagen film. Therefore, a more negative the "b" value indicates a poorer water barrier property of the skin care composition.

DETD Each of the skin care composition examples described below is formed by combining and mixing the ingredients using technology known in the art, then. . .

DETD The following is an example of a skin care composition useful for coating a desired article in accordance with the present invention. The composition is formed by combining. . .

DETD The following is an example of another skin care composition used in the present invention as in Example 1. The composition is formed by combining and mixing the. . .

DETD The following is an example of a skin care composition used in the present invention as in Example 1. The composition is formed by combining and mixing the. . .

DETD The following are examples of skin care compositions used in the present invention as in Example 1. The compositions are formed by combining and mixing the. . .

DETD The following is an example of a skin care composition used in the present invention as in Example 1. The composition is formed by combining and mixing the. . .

DETD . . . a comparison of barrier property and water vapor transmission rate (WVTR) of (i) an untreated collagen film, which simulates untreated skin, (ii) collagen films covered by comparative compositions 6a and 6b, and (iii) collagen films covered by compositions 6c, 4a, 4b,. . .

DETD The results show skin care composition such as composition 6a

has excellent barrier property but is occlusive (i.e., minimal WVTR). The results also show. . .

CLM What is claimed is:

1. An article for applying a skin care composition to the skin, said article comprising a delivery vehicle and a skin care composition disposed on at least a portion of said delivery vehicle, said skin care composition having: (a) a semi-solid or solid consistency at 20° C.; (b) a Water Vapor Permeation Rate of at. . .

2. The article of claim 1 wherein said skin care composition has a Water Vapor Permeation Rate of at least about 1 gm/m.sup.2 /hr and a Hunter b value. . .

3. The article of claim 1 wherein said skin care composition has a Water Vapor Permeation Rate of at least about 10 gm/m.sup.2 /hr and a Hunter b value. . .

7. The article of claim 5 wherein said portion comprises more than one surface and a first skin care composition is disposed on said surfaces.

8. The article of claim 5 wherein said portion comprises a second skin care composition disposed on at least one surface.

9. The article of claim 1 wherein said skin care composition ranges from about 0.05 mg/in.sup.2 to about 100 mg/in.sup.2.

10. The article of claim 1 wherein said skin care composition comprises: (a) from about 5 to about 95% by weight of a emollient; (b) from about 1 to. . .

21. The article of claim 10 wherein said skin care composition further comprises a skin care agent selected from the group consisting of Monographed Category I ingredients, Monographed Category III ingredients, enzyme inhibitors, protease inhibitors, chelating agents, anti-microbials, proton donating agents, skin soothing agents, vitamins, and mixtures thereof.

22. The article of claim 21 wherein said skin care agent is selected from the group consisting of zinc oxide, talc, starch, aloe vera, allantoin, hexamidine and its derivatives. . .

23. The article of claim 10 wherein said skin care composition further comprises an anti-oxidant selected from the group consisting of tocopherol, tocopherol acetate, mixed tocopherols, and mixtures thereof. . . .

24. The article of claim 10 wherein said skin care composition further comprising a material selected from the group consisting of water, surfactants, skin care agents, humectants, anti-oxidants, viscosity modifiers, suspending agents, pH buffering systems, perfumes, soothing agents, pigments, disinfectants, antibacterial actives, pharmaceutical actives,. . .

25. The article of claim 10 wherein said skin care composition further comprises a suspending agent selected from the group consisting of fumed silicas, treated fumed silicas, organoclays, and. . .

26. The article of claim 1 wherein said skin care composition comprises: (a) from about 1% to about 50% a petroleum-based emollients; (b) from about 1% to about 25%. . .

. . . claim 26 wherein said optional other ingredients are at least one material selected from the group consisting of water, surfactants, skin care agents, humectants, anti-oxidants, viscosity

modifiers, suspending agents, pH buffering systems, perfumes, soothing agents, pigments, disinfectants, antibacterial actives, pharmaceutical actives,. . .
29. An article to be placed in contact with the skin for applying a skin care composition to the skin, said article comprising a delivery vehicle and a skin care composition disposed on at least a portion of said delivery vehicle, said skin care composition comprising: (a) from about 5 to about 95% by weight of a emollient selected from the group consisting. . .

IT 56-81-5D, Glycerin, esters 57-50-1D, Sucrose, fatty acid ester 57-87-4, Ergosterol 57-88-5, Cholesterol, biological studies 58-95-7, Tocopherol acetate 60-00-4, Ethylenediamine tetraacetic acid, biological studies 67-97-0, Cholecalciferol 79-63-0, Lanosterol 83-46-5 83-86-3, Phytic acid 97-59-6, Allantoin 103-23-1, Dioctyl adipate 111-01-3, Fitoderm 112-92-5, Stearyl alcohol 125-33-7, Hexamidine 368-43-4, Phenylsulfonylfluoride 589-75-3, Butyl octanoate 659-40-5, Hexamidine diisethionate 661-19-8, Lanette 22 1314-13-2, Zinc oxide, biological studies 3687-46-5, Decyl oleate 6938-94-9, Ceraphyl 230 9005-25-8, Starch, biological studies 9012-76-4, Chitosan 14491-66-8, Dioctyl succinate 14807-96-6, Talc, biological studies 16958-85-3, Octyl palmitate 18312-31-7, Stearyl octanoate 25339-09-7, Isocetyl stearate 26545-74-4, Glyceryl linoleate 29710-25-6, 2-Ethylhexyl-12-hydroxy stearate 36653-82-4, Cetyl alcohol 42131-25-9, Salacos 99 58958-60-4, Ceraphyl 375 66009-41-4, Stearyl heptanoate 74819-90-2, Octyl 12-hydroxystearate 90052-75-8, Ceraphyl 847 138184-94-8, Cab-O-Sil TS-720 160525-18-8, Cholesterol hydroxystearate 163564-45-2, Isostearyl isononanoate
(articles having transferable breathable skin care compns. containing)

L42 ANSWER 35 OF 39 USPATFULL on STN
ACCESSION NUMBER: 1998:9171 USPATFULL
TITLE: Ultramulsion based ingestible compositions
INVENTOR(S): Hill, Ira D., Locust, NJ, United States
Walters, Peter P., Neshanic, NJ, United States
Brown, Dale G., Wharton, TX, United States
PATENT ASSIGNEE(S): WhiteHill Oral Technologies, Inc., Chadds Ford, PA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5711936		19980127
APPLICATION INFO.:	US 1995-464403		19950605 (8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Nutter, Nathan M.
LEGAL REPRESENTATIVE: Linek, Ernest V.
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 1085
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
SUMM Numerous topical products are used to treat various disruptions of the lips and the mouth as well as cold sores around the. . .
SUMM . . . by the National Institutes of Health, views ulcers as the result of infection by Helicobacter pylori a hardy strain of

bacteria that resides in the mucus layer that protects the lining of the stomach from harsh gastric juices. The treatment proposed. . .

DETD . . . of polydimethylsiloxanes for use in these various ingestible treatment products is well documented. See Rowe et al., Journal of Industrial Hygiene, 30(6): 332-352 (1948). See also Calandra et al., ACS Polymer Preprints, 17:1-4 (1976) and Kennedy et al., J. Toxicol. &. . . .

CLM What is claimed is:

. . . enhanced substantivity to surfaces in the oral cavity and functions as a reservoir for various lipid soluble and lipid dispersible hair care active ingredients.

IT 55-56-1, Chlorhexidine 89-78-1, Menthol 89-83-8, Thymol 94-09-7, Benzocaine 108-95-2, Phenol, biological studies 119-36-8, Methyl salicylate 443-48-1, Metronidazole 470-82-6, Eucalyptol 7783-47-3, Stannous fluoride 9006-65-9, Dimethicone 9016-00-6, Polydimethylsiloxane 31900-57-9, Polydimethylsiloxane 106392-12-5, Poloxamer 338
(oral care Ultramulsion based products)

L42 ANSWER 36 OF 39 USPATFULL on STN

ACCESSION NUMBER: 97:80927 USPATFULL
TITLE: Ultramulsion containing interdental delivery devices
INVENTOR(S): Hill, Ira D., Locust, NJ, United States
Walters, Peter P., Neshanic, NJ, United States
Brown, Dale G., Wharton, TX, United States
PATENT ASSIGNEE(S): WhiteHill Oral Technologies, Inc., Chadds Ford, PA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5665374		19970909
APPLICATION INFO.:	US 1995-462599		19950605 (8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Lovering, Richard D.
LEGAL REPRESENTATIVE: Linek, Ernest V.
NUMBER OF CLAIMS: 29
EXEMPLARY CLAIM: 1,19
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 1404
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM The interdental delivery devices of the present invention may be used by dentists and hygienists in various professional oral hygiene treatments and/or may be used by consumers for various at-home and away-from-home treatments ranging from massaging and cleaning to antiplaque,. . .

SUMM . . . action on the cell debris, food remnants, sugars and starches in the mouth. Embedded in this polymer matrix are the bacteria normal to the oral cavity but, when trapped against tooth surfaces and protected by the matrix from easy removal, are. . . position for "mischief." Most dental texts implicate plaque in the formation of caries, or tooth decay. In addition, these embedded bacteria release toxins that cause gingivitis, bleeding and swelling of the gums. Gingivitis can lead to periodontitis in which gums recede,. . .

SUMM Effective oral hygiene requires that three control elements be

maintained by the individual:

SUMM . . . but precious few carry toothbrush and dentifrice to use the other three or four times a day for optimal oral hygiene. Consumer research suggests that the population brushes an average of 1.2 times a day. Thus, the 24 hour period between. . .

SUMM . . . film, once it has firmly adhered to the tooth surface, is the only totally effective cleansing mechanism. Again, professional dental hygiene is the most effective, but recently a number of special abrasive toothpastes have been accepted by dental organizations as partially. . . .

SUMM 2. Antimicrobial action could affect plaque formation in two ways, (a) reducing the number of bacteria in the mouth which form the mucopolysaccharides and (b) killing those bacteria trapped in the film to prevent further growth and metabolism. However, the medical and dental community is divided about the. . .

SUMM 3. Removal of plaque precursors requires the reduction of food sources and building blocks required for the bacteria to synthesize the mucopolysaccharides which polymerize into the plaque film. Going far back into the chain of events leading to plaque formation and interrupting the chain has much to commend it as a sound oral hygiene strategy. However, for this strategy to be effective, the plaque building blocks must be interrupted periodically. As noted above, heretofore, the oral hygiene preparations described above fall short on "frequency-of-use" basis.

SUMM . . . either gingivitis or periodontitis. Gingivitis is an inflammation of the gingiva or gums that can be associated with poor oral hygiene and/or hormonal states of the host. It is assumed, but not proven in the human, that gingivitis will progress to. . .

SUMM Dentists have long assumed that periodontal disease originates by the overgrowth of bacteria on the tooth surfaces in aggregates known as dental plaque. If this plaque persists for long periods of time on. . .

SUMM . . . These compounds are designed to be used by the individual in dentifrices, dental powders, pastes, mouthwashes, nonabrasive gels, chewing gums, topical solutions and the like, e.g., see U.S. Pat. No. 4,205,061. They are designed to be used as prophylactic agents, usually. . .

SUMM . . . of Dental Plaque Infections, Oral Sci. Rev., 9:65-107 (1976) indicates that gingivitis and periodontitis are characterized by different types of bacteria. Gingivitis is associated with the accumulation of Gram positive cocci and actinomyces, whereas periodontitis is characterized by proportional increases in anaerobic bacteria, such as spirochetes and black pigmented bacteroides (see "Host-Parasite Interactions in Periodontal Disease," R. J. Genco and S. E. Mergenhagen, ads., Amer. Soc. for Microbiol. Washington, D.C. p. 27-45, 62-75, 1982). The different bacterial compositions of plaque associated with either gingivitis or periodontitis suggest that a mode of treatment that is effective in gingivitis. . . may not be effective in periodontitis. Previous discoveries in the area of periodontal disease have assumed that there is no bacterial specificity in periodontal disease. This is now known to be incorrect. These bacterial difference in plaque may explain why an agent effective in plaque control, such as chlorhexidine, has little effect on gingivitis. . .

SUMM . . . the dental plaque will differ according to its location on the tooth surface. Above the gingival or gum margin, facultative

bacteria, such as Gram positive cocci and rods, are numerically dominant, whereas below the gum margin, anaerobic motile bacteria such as spirochetes, and anaerobic Gram negative rods including the black-pigmented bacteroides are predominant. In other words, two different microbial. . .

SUMM . . . Pierre Fauchard in 1746 in his book entitled "The Surgeon Dentist, a Treatise on Teeth," involves the mechanical removal of bacterial plaques and accumulations from the periodontal pocket at periodic intervals. This may include periodontal surgery to achieve access and to. . . . general discomfort on the part of the patient so treated. Since these procedures provide, at best, only temporary reduction in bacterial populations, they must be repeated at regular intervals to be effective. As discussed by Lindhe and coworkers in "Healing Following. . .

SUMM . . . a drug-containing plastic hardenable mass (see U.S. Pat. No. 3,964,164); a medicated periodontal dressing (see U.S. Pat. No. 3,219,527); a topical dressing composed of a finely divided particulate carrier and suspended medicinal agents (see U.S. Pat. No. 3,698,392); a bandage for covering moist mucosal surfaces (see U.S. Pat. No. 3,339,546); a microencapsulated liquid droplet formation for topical application to the gums of dogs and other animals (see U.S. Pat. No. 4,329,333); and foam-film devices containing medication (see. . .

SUMM . . . which when released during use exhibit enhanced substantivity while containing a reservoir of various active ingredients for treating various oral hygiene conditions.

SUMM It is yet another object of the invention to provide a method to treat various oral hygiene conditions with the interdental delivery devices of the present invention containing ULTRAMULSION.TM. dispersions.

DETD . . . high viscosity polydimethylsiloxanes having viscosities from about 2.5 million cs to about 4 million cs are particularly preferred for the hair care products of the present invention. Other polydimethylsiloxanes suitable for the present invention, include "substituted" water insoluble silicones and mixtures. . .

DETD Silicone materials found especially useful in the present devices to provide good oral hygiene results are silicone gums. Silicone gums described by Petrarch and others including U.S. Pat. No. 4,152,416, May 1, 1979 to. . .

DETD . . . The safety of polydimethylsiloxanes for use in these various products is well documented. See Rowe et al., Journal of Industrial Hygiene, 30:332-352 (1948). See also Calandra et al., "ACS Polymer Preprints," 17:1-4 (1976) and Kennedy et al., J. Toxicol. & Environmental. . .

IT 55-56-1, Chlorhexidine 89-78-1, Menthol 89-83-8, Thymol 94-09-7, Benzocaine 108-95-2, Phenol, biological studies 119-36-8, Methyl salicylate 443-48-1, Metronidazole 470-82-6, Eucalyptol 7783-47-3, Stannous fluoride 9006-65-9, Dimethicone 9016-00-6, Polydimethylsiloxane 31900-57-9, Polydimethylsiloxane 106392-12-5, Poloxamer 338
(oral care Ultramulsion based products)

L42 ANSWER 37 OF 39 USPATFULL on STN
ACCESSION NUMBER: 97:65853 USPATFULL
TITLE: Ultramulsion based oral care compositions
INVENTOR(S): Hill, Ira D., Locust, NJ, United States
Walters, Peter P., Neshanic, NJ, United States

Brown, Dale G., Wharton, TX, United States
PATENT ASSIGNEE(S): WhiteHill Oral Technologies, Inc., Chadds Ford, PA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5651959		19970729
APPLICATION INFO.:	US 1995-462203		19950605 (8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Mosley, Terressa
LEGAL REPRESENTATIVE: Linek, Ernest V.
NUMBER OF CLAIMS: 30
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 1452
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM The compositions of the present invention may be used by dentists and hygienists in various professional oral hygiene treatment and/or may be used by consumers in various at-home and away-from-home oral hygiene products ranging from mouth rinses, gels, toothpastes, tooth powders, dental creams, denture wearers products, dental floss, to interproximal simulators, mints. . .

SUMM . . . action on the cell debris, food remnants, sugars and starches in the mouth. Embedded in this polymer matrix are the bacteria normal to the oral cavity but, when trapped against tooth surfaces and protected by the matrix from easy removal, are. . . position for "mischief." Most dental texts implicate plaque in the formation of caries, or tooth decay. In addition, these embedded bacteria release toxins that cause gingivitis, bleeding and swelling of the gums. Gingivitis can lead to periodontitis in which gums recede,. . .

SUMM Effective oral hygiene requires that three control elements be maintained by the individual:

SUMM . . . but precious few carry toothbrush and dentifrice to use the other three or four times a day for optimal oral hygiene. Consumer research suggests that the population brushes an average of 1.2 times a day. Thus, the 24 hour period between. . .

SUMM . . . film, once it has firmly adhered to the tooth surface, is the only totally effective cleansing mechanism. Again, professional dental hygiene is the most effective, but recently a number of special abrasive toothpastes have been accepted by dental organizations as partially. . .

SUMM 2. Antimicrobial action could affect plaque formation in two ways, (a) reducing the number of bacteria in the mouth which form the mucopolysaccharides and (b) killing those bacteria trapped in the film to prevent further growth and metabolism. However, the medical and dental community is divided about the. . .

SUMM 3. Removal of plaque precursors requires the reduction of food sources and building blocks required for the bacteria to synthesize the mucopolysaccharides which polymerize into the plaque film. Going far back into the chain of events leading to plaque formation and interrupting the chain has much to commend it as a sound oral hygiene strategy. However, for this strategy to be effective, the plaque building blocks must be interrupted periodically. As noted above, heretofore, the oral hygiene preparations described above fall short on "frequency-of-use" basis.

SUMM . . . either gingivitis or periodontitis. Gingivitis is an

inflammation of the gingiva or gums that can be associated with poor oral hygiene and/or hormonal states of the host. It is assumed, but not proven in the human, that gingivitis will progress to. . .

SUMM Dentists have long assumed that periodontal disease originates by the overgrowth of bacteria on the tooth surfaces in aggregates known as dental plaque. If this plaque persists for long periods of time on. . . .

SUMM . . . These compounds are designed to be used by the individual in dentifrices, dental powders, pastes, mouthwashes, nonabrasive gels, chewing gums, topical solutions and the like, e.g., see U.S. Pat. No. 4,205,061. They are designed to be used as prophylactic agents, usually. . .

SUMM . . . Dental Plaque Infections, Oral Sci. Rev., 9: 65-107 (1976) indicates that gingivitis and periodontitis are characterized by different types of bacteria. Gingivitis is associated with the accumulation of gram positive cocci and actinomyces, whereas periodontitis is characterized by proportional increases in anaerobic bacteria, such as spirochetes and black pigmented bacteroides (see "Host-Parasite Interactions in Periodontal Disease," R. J. Genco and S. E. Mergenhagen, eds. Amer. Soc. for Microbiol. Washington, D.C. p. 27-45, 62-75, 1982). The different bacterial compositions of plaque associated with either gingivitis or periodontitis suggest that a mode of treatment that is effective in gingivitis. . . may not be effective in periodontitis. Previous discoveries in the area of periodontal disease have assumed that there is no bacterial specificity in periodontal disease. This is now known to be incorrect. These bacterial differences in plaque may explain why an agent effective in plaque control, such as chlorhexidine, has little effect on gingivitis. . .

SUMM . . . the dental plaque will differ according to its location on the tooth surface. Above the gingival or gum margin, facultative bacteria, such as gram positive cocci and rods, are numerically dominant, whereas below the gum margin, anaerobic motile bacteria such as spirochetes, and anaerobic gram negative rods including the black-pigmented bacteroides are predominant. In other words, two different microbial. . .

SUMM . . . Pierre Fauchard in 1746 in his book entitled "The Surgeon Dentist, a Treatise on Teeth," involves the mechanical removal of bacterial plaques and accumulations from the periodontal pocket at periodic intervals. This may include periodontal surgery to achieve access and to. . . general discomfort on the part of the patient so treated. Since these procedures provide, at best, only temporary reduction in bacterial populations, they must be repeated at regular intervals to be effective. As discussed by Lindhe and coworkers in "Healing Following. . .

SUMM . . . a drug-containing plastic hardenable mass (see U.S. Pat. No. 3,964,164); a medicated periodontal dressing (see U.S. Pat. No. 3,219,527); a topical dressing composed of a finely divided particulate carrier and suspended medicinal agents (see U.S. Pat. No. 3,698,392); a bandage for covering moist mucosal surfaces (see U.S. Pat. No. 3,339,546); a microencapsulated liquid droplet formation for topical application to the gums of dogs and other animals (see U.S. Pat. No. 4,329,333); and foam-film devices containing medication (see. . .

SUMM . . . antigingivitis and periodontal treatment products with enhanced substantivity while containing a reservoir of various active ingredients

for treating various oral hygiene conditions.
SUMM It is yet another object of the invention to provide a method to treat various oral hygiene conditions with the ULTRAMULSION.TM. dispersions of the present invention.
DETD . . . high viscosity polydimethylsiloxane having viscosities from about 2.5 million cs to about 4 million cs are particularly preferred for the hair care products of the present invention. Other polydimethylsiloxanes suitable for the present invention include "substituted" water insoluble silicones and mixtures. . .
DETD Silicone materials found especially useful in the present compositions to provide good oral hygiene results are silicone gums. Silicone gums described by Petrarch and others including U.S. Pat. No. 4,152,416, May 1, 1979 to. . .
DETD . . . The safety of polydimethylsiloxanes for use in these various products is well documented. See Rowe et al., Journal of Industrial Hygiene, 30: 332-352 (1948). See also Calandra et al., "ACS Polymer Preprints", 17: 1-4 (1976) and Kennedy et al., J. Toxicol. . .
CLM What is claimed is:
. . . to surfaces in the oral cavity and functions as a reservoir for one or more lipid soluble and lipid dispersible hair care active ingredients.

IT 55-56-1, Chlorhexidine 89-78-1, Menthol 89-83-8, Thymol 94-09-7, Benzocaine 108-95-2, Phenol, biological studies 119-36-8, Methyl salicylate 443-48-1, Metronidazole 470-82-6, Eucalyptol 7783-47-3, Stannous fluoride 9006-65-9, Dimethicone 9016-00-6, Polydimethylsiloxane 31900-57-9, Polydimethylsiloxane 106392-12-5, Poloxamer 338
(oral care Ultramulsion based products)

L42 ANSWER 38 OF 39 USPATFULL on STN

ACCESSION NUMBER:	97:58906 USPATFULL
TITLE:	Ultramulsion based oral care rinse compositions
INVENTOR(S):	Hill, Ira D., Locust, NJ, United States Walters, Peter P., Neshanic, NJ, United States Brown, Dale G., Wharton, TX, United States
PATENT ASSIGNEE(S):	WhiteHill Oral Technologies, Inc., Chadds Ford, PA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5645841		19970708
APPLICATION INFO.:	US 1995-462930		19950605 (8)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Mosley, Terressa
LEGAL REPRESENTATIVE:	Linek, Ernest V.
NUMBER OF CLAIMS:	26
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	8 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT:	1272

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
SUMM The compositions of the present invention may be used by dentists and hygienists in various professional oral hygiene treatments and/or may be used by consumers in various at-home oral hygiene programs without professional supervision.
SUMM . . . action on the cell debris, food remnants, sugars and starches

in the mouth. Embedded in this polymer matrix are the bacteria normal to the oral cavity but, when trapped against tooth surfaces and protected by the matrix from easy removal, are. . . position for "mischief." Most dental texts implicate plaque in the formation of caries, or tooth decay. In addition, these embedded bacteria release toxins that cause gingivitis, bleeding and swelling of the gums. Gingivitis can lead to periodontitis in which gums recede,. . .

SUMM Effective oral hygiene requires that three control elements be maintained by the individual:

SUMM . . . but precious few carry toothbrush and dentifrice to use the other three or four times a day for optimal oral hygiene. Consumer research suggests that the population brushes an average of 1.2 times a day. Thus, the 24 hour period between. . .

SUMM . . . film, once it has firmly adhered to the tooth surface, is the only totally effective cleansing mechanism. Again, professional dental hygiene is the most effective, but recently a number of special abrasive toothpastes have been accepted by dental organizations as partially. . .

SUMM 2. Antimicrobial action could affect plaque formation in two ways, (a) reducing the number of bacteria in the mouth which form the mucopolysaccharides and (b) killing those bacteria trapped in the film to prevent further growth and metabolism.

SUMM 3. Removal of plaque precursors requires the reduction of food sources and building blocks required for the bacteria to synthesize the mucopolysaccharides which polymerize into the plaque film. Going far back into the chain of events leading to plaque formation and interrupting the chain has much to commend it as a sound oral hygiene strategy. However, for this strategy to be effective, the plaque building blocks must be interrupted periodically. As noted above, heretofore, the oral hygiene preparations described above fall short on "frequency-of-use" basis.

SUMM . . . either gingivitis or periodontitis. Gingivitis is an inflammation of the gingiva or gums that can be associated with poor oral hygiene and/or hormonal states of the host. It is assumed, but not proven in the human, that gingivitis will progress to. . .

SUMM Dentists have long assumed that periodontal disease originates by the overgrowth of bacteria on the tooth surfaces in aggregates known as dental plaque. If this plaque persists for long periods of time on. . .

SUMM . . . These compounds are designed to be used by the individual in dentifrices, dental powders, pastes, mouthwashes, nonabrasive gels, chewing gums, topical solutions and the like, e.g., see U.S. Pat. No. 4,205,061. They are designed to be used as prophylactic agents, usually. . .

SUMM . . . Dental Plaque Infections, Oral Sci. Rev., 9: 65-107 (1976) indicates that gingivitis and periodontitis are characterized by different types of bacteria. Gingivitis is associated with the accumulation of Gram positive cocci and actinomyces, whereas periodontitis is characterized by proportional increases in anaerobic bacteria, such as spirochetes and black pigmented bacteroides (see "Host-Parasite Interactions in Periodontal Disease," R. J. Genco and S. E. Mergenhagen, eds. Amer. Soc. for Microbiol. Washington, D.C. p. 27-45, 62-75, 1982). The different bacterial compositions of plaque associated with either gingivitis or periodontitis suggest that a mode of treatment that is effective in gingivitis. . . may not be effective in periodontitis. Previous discoveries in the area of

periodontal disease have assumed that there is no bacterial specificity in periodontal disease. This is now known to be incorrect. These bacterial differences in plaque may explain why an agent effective in plaque control, such as chlorhexidine, has little effect on gingivitis. . .

SUMM . . . the dental plaque will differ according to its location on the tooth surface. Above the gingival or gum margin, facultative bacteria, such as Gram positive cocci and rods, are numerically dominant, whereas below the gum margin, anaerobic motile bacteria such as spirochetes, and anaerobic Gram negative rods including the black-pigmented bacteroides are predominant. In other words, two different microbial. . .

SUMM . . . Pierre Fauchard in 1746 in his book entitled "The Surgeon Dentist, a Treatise on Teeth," involves the mechanical removal of bacterial plaques and accumulations from the periodontal pocket at periodic intervals. This may include periodontal surgery to achieve access and to. . . general discomfort on the part of the patient so treated. Since these procedures provide, at best, only temporary reduction in bacterial populations, they must be repeated at regular intervals to be effective. As discussed by Lindhe and coworkers in "Healing Following. . .

SUMM . . . a drug-containing plastic hardenable mass (see U.S. Pat. No. 3,964,164); a medicated periodontal dressing (see U.S. Pat. No. 3,219,527); a topical dressing composed of a finely divided particulate carrier and suspended medicinal agents (see U.S. Pat. No. 3,698,392); a bandage for covering moist mucosal surfaces (see U.S. Pat. No. 3,339,546); a microencapsulated liquid droplet formation for topical application to the gums of dogs and other animals (see U.S. Pat. No. 4,329,333); and foam-film devices containing medication (see. . .

SUMM . . . 10% and with enhanced substantivity while containing a reservoir of various active essential oil, active ingredients for treating various oral hygiene conditions.

SUMM It is yet another object of the invention to provide a method to treat various oral hygiene conditions with the low alcohol level ULTRAMULSION.TM. dispersion containing rinses of the present invention.

DETD Silicone materials found especially useful in the present compositions to provide good oral hygiene results are silicone gums. Silicone gums described by Petrarch and others including U.S. Pat. No. 4, 152,416, May 1, 1979. . .

DETD . . . The safety of polydimethylsiloxanes for use in these various products is well documented. See Rowe et al., Journal of Industrial Hygiene, 30: 332-352 (1948). See also Calandra et al., "ACS Polymer Preprints," 17: 1-4 (1976) and Kennedy et al., J. Toxicol. . .

CLM What is claimed is:

. . . enhanced substantivity to surfaces in the oral cavity and functions as a reservoir for various lipid soluble and lipid dispersible hair care active ingredients.

IT 55-56-1, Chlorhexidine 89-78-1, Menthol 89-83-8, Thymol 94-09-7, Benzocaine 108-95-2, Phenol, biological studies 119-36-8, Methyl salicylate 443-48-1, Metronidazole 470-82-6, Eucalyptol 7783-47-3, Stannous fluoride 9006-65-9, Dimethicone 9016-00-6, Polydimethylsiloxane 31900-57-9, Polydimethylsiloxane 106392-12-5, Poloxamer 338
(oral care Ultramulsion based products)

L42 ANSWER 39 OF 39 USPATFULL on STN

ACCESSION NUMBER:	95:94670 USPATFULL
TITLE:	Oral disinfectant for companion animals
INVENTOR(S):	Asami, Takao, Mitaha, Japan Takhashi, Manabu, Matsudo, Japan Andrews, Jeffrey F., Stillwater, MN, United States Boettcher, Thomas E., Hastings, MN, United States
PATENT ASSIGNEE(S):	Minnesota Mining and Manufacturing Company, St. Paul, MN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5460802		19951024
APPLICATION INFO.:	US 1994-276531		19940718 (8)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Prescott, Arthur C.
LEGAL REPRESENTATIVE:	Griswold, Gary L., Kirn, Walter N., Busse, Paul W.
NUMBER OF CLAIMS:	10
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT:	554

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . and sanitary care of the oral cavity is important. For example, dogs and cats are popular companion animals and oral hygiene for them is different from that for human beings since general brushing of teeth of such animals may be very. . .

SUMM . . . hydrogen ion concentration or pH value in the oral cavity of dogs and cats is 8.0 or higher so that bacteria such as Escherichia coli and other various putrefying microbes grow in the cavity and make it unsanitary. Putrefying microbes include anaerobic microbes such as Bacteroides, anaerobic Streptococcus, Clostridium, Vaillonella, etc., as well as aerobic bacteria such as Escherichia coli, Pseudomonas aeruginosa, Proteus, and Staphylococcus. Furthermore, food residues adhered to teeth may form plaque containing salivary bacteria. About 70 to 80% of plaque is water, while the remaining content includes proteins. Such proteins are decomposed by putrefying microbes to form offensive substances such as ammonia, hydrogen sulfide, amines, indoles, phenols, mercaptans, etc. The number of salivary bacteria is from 10.sup.7 to 10.sup.11 bacteria per ml of saliva, and includes not only gram-positive bacteria but also various gram-negative bacteria which grow and proliferate in saliva. Microbes in plaque typically include Bacteroides, Gingivalis, Actinobacillus and Actinomycetamcomitans. These gram-negative microbes produce. . .

SUMM . . . tissues. Tartar also induces further deposition and accumulation of plaque on teeth, and the resulting toxins and acids from parasitized bacteria may damage or destroy periodontia.

SUMM Antibiotics may be used for both systemic and/or local application to the oral cavity and may exterminate pathogenic bacteria when used to treat periodontitis disorders. However, antibiotics do not remove bacteria or endotoxins that may be firmly adhered to the surfaces of teeth. For local application, use of minocycline hydrochloride is. . .

SUMM . . . part, to lower pH values of an animal's oral cavity with the use of safe, acidic substances which exterminate various bacteria and prevent bacterial propagation.

10613723

DETD . . . are generally recognized as safe (GRAS) materials. These monoesters are reported to be effective as food preservatives and effective as topical pharmaceutical agents. For example, Kabara, J. of Food Protection, 44:633-647 (1981) and Kabara, J. of Food Safety, 4:13-25 (1982) report. . .

DETD . . . and salts thereof. These materials are typically components which have been used with glycerol fatty acid esters to provide useful topical antimicrobial pharmaceutical compositions and preservative compositions. See, e.g., Kabara, EPO 0 243 145 published Oct. 28, 1987 and Karbara, EPO. . .

DETD . . . the oral cavity, lower its pH value and promote the secretion of saliva. Thus it reduces the number of oral bacteria which helps to eliminate bad breath and relieve inflammations in the gingivae, the periodontia and the mucous membranes in the. . . be easier to feed, their appetite may be increased and, hence, they may have a fine and glossy coat of hair and become healthy.

DETD . . . oral disinfectant of the present invention improves the oral conditions in companion animals because it reduces the number of oral bacteria, lowers the pH value in the oral cavity, disinfects the oral cavity, promotes the secretion of saliva, and reduces the. . .

DETD . . . be killed by the oral disinfectant of the present invention. Aerobic microbes known to cause gingivitis (gram-positive microbes, gram-negative microbes, fungi and anaerobic microbes) are killed. Anaerobic microbes known to cause periodontitis, such as Bacteroides, Spirochaeta, etc., are also killed. Thus,. . .

DETD . . . Cats

Symptoms	Points
Almost no stomatitis inflammation was found in tested animals	0
Light bleeding and some stomatitis inflammations were found partly in the mucous membrane in their oral cavity, but the tested animals had no problem in feeding They could feed, but some ulcers were found in. . .	1

IT 50-21-5, Lactic acid, biological studies 50-81-7, Ascorbic acid, biological studies 57-55-6, Propylene glycol, biological studies 57-55-6D, Propylene glycol, C6-14 fatty esters 60-00-4, EDTA, biological studies 64-19-7, Acetic acid, biological studies 77-92-9, Citric acid, biological studies 87-69-4, Tartaric acid, biological studies 90-64-2, Mandelic acid 110-15-6, Succinic acid, biological studies 110-44-1, Sorbic acid 124-04-9, Adipic acid, biological studies 124-07-2, Caprylic acid, biological studies 334-48-5, Capric acid 6915-15-7, Malic acid 7758-16-9 25322-68-3, PEG 27215-38-9, Glycerol monolaurate 106392-12-5, Pluronic F-68
(oral disinfectant for companion animals)

=>

---Logging off of STN---

=>
Executing the logoff script...

Jagoe

10613723

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	139.24	467.09

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.80	-0.80

STN INTERNATIONAL LOGOFF AT 11:03:14 ON 02 MAR 2008

Jagoe